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INFLATION

To what extent has our circulating medium been inflated since the beginning of the war in Europe; and what evils and what benefits have resulted from this inflation? The purpose of this paper is to throw some light upon these important and much controverted questions.

The term inflation as used in current discussions is given a variety of meanings, and much of the difference of opinion that exists on the subject is due to a confusion of terms. Without attempting to harmonize the various conflicting views, nor to give a precise and formal definition of inflation, we may note that there is one idea common to most uses of the word, namely the idea of a supply of circulating media in excess of trade needs. It is the idea of a redundancy of money or circulating credit or both, a redundancy that results in rising prices. This is the broad concept of inflation as the term is used in this paper. More specifically, inflation occurs when, *at a given price level*, a country's circulating media—cash and deposit currency—increase *relatively* to trade needs.

The first step in any examination of the subject of inflation, therefore, is to measure in some way the growth of trade needs. Can this be done? It cannot with any high degree of accuracy, but a rough approximation can probably be reached through the study of certain statistics which typify business activity and growth. Obviously the statistics used to measure business should not involve prices, for price fluctuations are themselves supposed to be in part the result of this inflation. The statistics used, therefore, as indices of business growth and activity should be expressed in units other than monetary units. The items chosen, moreover, should be important ones which are reasonable indices of either business activity and growth in general, or of business activity and growth in important branches of industry. Among the best items for measuring the movement of business in general, because they are items that enter into so many products, are the production of pig iron, bituminous coal, anthracite coal, petroleum, copper, and silver. Other good indices of general business

are the number of tons of freight carried on important railroads and the tonnage of vessels entered and cleared at American ports. Representative of agricultural industry is the production of wheat, corn, and cotton; and representative of the building industry is the number of building permits given in leading cities. Here are twelve items any one of which is an honest witness of the growth of American business, but each of which has its own bias. Safer than to trust any one of them is to take the testimony of all, so that in the mouths of many witnesses the truth may be established. If we reduce the figures for each of these twelve items to a percentage basis, taking as 100 the average figure for the five calendar years 1910-1914 inclusive, and if we then combine these percentage figures into a simple average we arrive at a series of index numbers, which should represent in a rough way the growth of business in general. Such computations give the result shown in the following table:

TABLE 1.—GROWTH OF BUSINESS 1910-1917¹

Year	Index Number
1910	93
1911	95
1912	102
1913	105
1914	104
1915	108
1916	113
1917	127

¹ In computing the items in the table given above the figure used for anthracite coal is that representing the number of tons carried to tide water. The figure for copper refers to refined output, including import of crude copper. The figures for building permits granted in certain cities cover 49 leading cities. They are the figures given in the *Statistical Abstract of the United States* for 1916, less the figures for Fall River, Providence, and Reading, cities for which data are not available for all years. Figures for 1917 were compiled from *Bradstreet's Review*. The index number covering the number of revenue tons of freight carried on railroads is based upon six representative railroads, the only ones for which figures for the period 1910-1916 were available for calendar years. This item is not included in the index for 1917, for the figures for 1917 are not yet available. The railroads included are: Cleveland, Cincinnati, Chicago & St. Louis Railroad; Delaware and Hudson Co.; Delaware, Lackawanna & Western Railroad; New York, Chicago and St. Louis Railroad; Pennsylvania Railroad, and Pittsburgh, Cincinnati, Chicago & St. Louis Railroad.

Irving Fisher publishes each year an index number of the volume of trade in his article on "The Equation of Exchange" for the year in this *REVIEW*. See also B. M. Anderson's "Index Numbers of Prices and Railroad Receipts" in *The Annalist*, Jan. 7, 1918, p. 3.

Aside from the slight decline in the year 1914 when the war broke out, the figures show a moderate growth of business each year from 1910 to 1916, and a pronounced growth in 1917. Comparing the year 1913, namely the last year before the war broke out, with 1917, we find a business growth of 21 per cent.

The above figures do not include any item representing directly the business of the stock market—a business which obviously makes a large and varying demand upon our circulating medium. There exists no good non-monetary index of the business on our stock exchanges, but the best one available is the number of shares traded on in the New York stock exchange. For the period in question, the index numbers for the number of shares traded in on the New York stock exchange are as follows:

TABLE 2.—INDEX OF SPECULATIVE TRANSACTIONS²

Year	Index Number
1910	130
1911	100
1912	104
1913	66
1914	38
1915	137
1916	184
1917	147

The figure for 1917 is 123 per cent higher than that for the exceptionally low year 1913, and is 7 per cent higher than that for 1915.

It is a debatable question how much weight should be given a stock exchange item of this kind in constructing an index number of the growth of business. Some would leave it out entirely on the ground that it is not fairly representative of speculative transactions, and that the wide variation it shows so distorts the story told by the other figures as to impair its usefulness. Others would give it a large importance in a study of inflation, because of the heavy demand stock trading makes upon our deposit currency. If we treat this item as of the same relative importance in the general index of business as pig iron produced, bituminous coal produced, or any of the other items above mentioned, and if

²The base period taken as 100 in computing these index numbers is the average for the 4 years 1910-1913, inclusive. In view of the fact that the New York stock exchange was closed for stock trading between July 31 and December 12, 1914, it was impracticable to include the year 1914 in computing the base, for its inclusion would have distorted the figures.

we incorporate it as one of thirteen items in the general index of the growth of business, that index becomes as follows:

TABLE 3.—INDEX OF THE GROWTH OF BUSINESS
(INCLUDING ITEM FOR SPECULATIVE TRANSACTION)

Year	Index Number
1910	96
1911	95
1912	102
1913	102
1914	99
1915	110
1916	119
1917	129

This index of the growth of business is much more irregular in its movement than the first one. It shows a business increase of 26 per cent since the pre-war year 1913, as compared with the 21 per cent shown by the index from which the item of stock exchange trading was omitted. The writer believes that the first index of the growth of business is the preferable one, but this second one is included for the use of any one who prefers it.

Money in Circulation

Having found evidence which shows in a rough way the relative movement of the volume of the country's business transactions during recent years, let us next inquire concerning the volume of money in circulation for the same period; namely, money outside of federal treasury vaults but exclusive of the money reserve held against federal reserve notes.³

³ In computing the total monetary circulation of the United States, the following plan has been used. In order to make the figures representative of the entire year, and render them comparable with those for the growth of business, we have taken for each year the average of the circulation figures for the four quarterly dates, beginning with that of March 31.

The circulation includes all kinds of money in the country, except that held in the federal treasury as assets of the government, and except that part of the cash held by the twelve federal reserve banks and the twelve federal reserve agents, that would represent the same percentage of cash reserve against outstanding federal reserve notes as the percentage held against deposits and notes combined. Only net circulation of federal reserve notes is therefore included in the circulation, but the net circulation is computed on the basis of allocating to the notes the same percentage of reserve as that represented by the percentage of cash reserve held by the federal reserve banks to deposits and outstanding notes combined. In this way the figures for the period before the federal reserve amendment of June 21, 1917, are made comparable with those after that date.

TABLE 4.—MONETARY CIRCULATION OF THE UNITED STATES

Year	Amount of money in circulation (Millions)	Index Number
1910	\$3154	95
1911	3238	98
1912	3304	100
1913	3390	102
1914	3505	106
1915	3682	111
1916	4159	125
1917	4914	148

This shows an increase in the total monetary circulation for 1917 of 45 per cent over that for 1913, while the volume of business in the same time increased 21 per cent if one excludes from the business index the item for number of shares sold on the New York stock exchange, and it increased 26 per cent if one includes that item. On either basis, therefore, the figures show that since the last year of peace the amount of money in circulation in the United States has increased very much more than the physical volume of business to be done.

Gold

In this connection it is interesting to note that the amount of gold used as money increased during this period even more than the total monetary circulation. In other words, of our total circulation the proportion consisting of gold was a rapidly increasing one. The growth of the gold circulation of the United States (inclusive of gold held by the federal reserve banks and of gold bars used in place of gold coin in monetary reserves) was as follows, using the average figures of the four quarterly dates for each year.⁴

TABLE 5.—CIRCULATION OF GOLD AND GOLD CERTIFICATES

Year	Amount (Millions)	Index Number
1910	\$1424	92
1911	1518	98
1912	1558	101
1913	1626	105
1914	1620	105
1915	1838	119
1916	2322	150
1917	2860	185

⁴Gold held in the United States Treasury as an asset of the government is not included.

Here is an increase of about 76 per cent in the gold circulation since 1913, as compared with 45 per cent in the total circulation, and 21 per cent or 26 per cent in the growth of business, depending upon whether the item for shares sold on the New York stock exchange is excluded from the index of business growth or not.

Deposit Currency

The great bulk of the business of the United States—variously estimated from 75 per cent to 90 per cent—is effected not directly by means of cash, but by means of bank deposits which circulate through the instrumentality of bank checks. These check deposits are all payable in cash on demand, and, although they are supported by the other assets of the banks, their most direct and immediate support is the cash reserve. Deposits must be paid in cash when cash is demanded, and the other assets may be used for that purpose only when turned into cash. In its function of serving as bank reserves, money possesses its most efficient use. An active deposit account, of which the average daily balance is \$10,000 for the year, may perform several hundred thousand dollars' worth of exchange work within the year through the checks that will be drawn against it. If an average cash reserve of, say, \$2,000 or 20 per cent is held against this deposit (either entirely in the bank's own vault or partly in the bank's own vault and partly in the vaults of other banks), the dollar in reserve money, other things equal, is obviously only one half as efficient as it would be if the reserve needed for the same purpose were only \$1,000, or 10 per cent of the average daily balance.

Recent improvements in our banking system, growing out of the establishment of the federal reserve system and its subsequent development, have made our reserve money more efficient than it formerly was; in other words, have enabled a dollar in reserve to do more money work than before. This in effect is equivalent to increasing the supply of money.

In the light of this principle, let us examine the evidence available on the subject of the growth of cash reserves, and of bank deposits for the years 1910-1917.

Cash Reserves of Banks

In the examination of cash reserves, we shall concern ourselves not with legal reserves, but only with ultimate cash reserves: namely, cash on hand in individual commercial banks and in fed-

eral reserve banks, cash reserved as the currency support for individual and government deposits.

The reserve figures used in this paper cover the following items: (1) the average amount of cash in vaults of national banks for the dates of the five or six comptroller's calls each year, said cash being taken to include specie, legal tenders, fractional money, and bank notes of other banks;⁵ (2) the cash in vaults of state banks and loan and trust companies about July 1 of each year, as shown by the reports of the Comptroller of the Currency; (3) such a part of the cash reserve of the twelve federal reserve banks as is properly allocated to deposits as contrasted with federal reserve notes.⁶

The cash reserves against deposits of all commercial banks and of the twelve federal reserve banks for the years 1910-1917 computed in the manner above described were as follows:

TABLE 6.—CASH RESERVE AGAINST BANK DEPOSITS HELD BY NATIONAL BANKS, STATE BANKS, TRUST COMPANIES, AND FEDERAL RESERVE BANKS

Year	Amount (Millions)	Index Number
1910	\$1377	93
1911	1446	98
1912	1492	101
1913	1488	101
1914	1566	106
1915	1714	116
1916	1912	130
1917	2254	153

Comparing this growth with that of business and of the total monetary circulation, we find that from 1913 to 1917 cash reserves increased 51 per cent, and business 21 per cent or 26 per cent, according as one excludes or not from the business index the

⁵ The 5 per cent redemption fund deposited with the Treasurer of the United States, for the redemption of bank notes, although countable as part of a bank's legal reserve money against deposits prior to the inauguration of the federal reserve system, was in fact so essentially a redemption fund for bank notes that it has not been included in the cash reserve against deposits given below.

⁶ The basis of the apportionment is the assignment to deposits of that proportion of the total cash of the reserve banks (including that deposited as collateral with the federal reserve agents for federal reserve notes) which is represented by the ratio of the total deposit liability of the banks to the total deposit and federal reserve note liability. The figures for each year used in computing the federal reserve banks' reserve against deposits are the average figures for the four quarterly dates coming near the end of the four quarters beginning with the date of March 31 each year. See also note 3.

item of shares sold on the New York stock exchange, while the total monetary circulation increased 45 per cent. A slightly larger proportion of the currency of the country was therefore held in the vaults of banks in 1917 than in 1913.

TABLE 7.—PERCENTAGE OF CASH RESERVES IN BANKS TO TOTAL
MONETARY CIRCULATION

1910	44
1911	45
1912	45
1913	44
1914	45
1915	47
1916	46
1917	46

The change in these percentages for the period 1910-1917 is so slight that considering the crude character of the figures, we must interpret it as being almost negligible. The conclusion, therefore, is that practically the same percentage of the money in circulation in the United States is in bank reserves today, as has been throughout the period 1910-1917.

Growth of Bank Deposits

We are now prepared to raise the question whether a dollar in bank reserve is supporting more or less of bank deposits now than in 1913.

What has been the growth of bank deposits during the period of 1910-1917? In such an inquiry we are concerned only with the demand deposits subject to check. We may therefore eliminate the deposits of savings banks and of private banks, although a few of these deposits come under that class.⁷ Deposits of one bank in another bank may likewise be eliminated. Since these deposits are chiefly for reserve or collection purposes they may

⁷ Time deposits of commercial banks should properly be eliminated, but inasmuch as these are not separated from the demand deposits in the official figures covering the period prior to 1915, it is impracticable to separate them in our figures. Furthermore, the same legal reserve was required to be held against them by national banks prior to the inauguration of the federal reserve system as was required against demand deposits, and the reserve included in the figures previously given in this paper for commercial banks included reserves held against time deposits. Inasmuch as time deposits in commercial banks are relatively small as compared with demand deposits, and show during the few years for which we have separate figures a roughly constant ratio to demand deposits, their inclusion in the deposit figures for the entire period will not materially affect the result.

best be considered as part of the machinery of banking. Government deposits either in commercial banks or federal reserve banks should be included among the deposits representing the deposit currency of the country regardless of the fact that the law may not require a legal reserve to be held against them. They are usually payable on demand and are subject to check. Inasmuch as other annual figures have been based upon the average figures for quarterly periods, or for the dates of the comptroller's calls each year, the same policy will be followed in computing deposits. For deposits of state banks and trust companies, figures must be taken for July 1, since that date in the middle of the year is the only one for which comprehensive figures are available. Constructing the figures for deposits in the manner just explained, the following results are obtained:

TABLE 8.—GROWTH OF BANK DEPOSITS, 1910-1917

Year	Deposits in national banks ⁸		Deposits in state banks and trust companies ⁹		Government deposits in federal reserve banks ¹⁰	Total deposits	
	Amount (Millions)	Index Numbers	Amount (Millions)	Index Numbers	Amount (Millions)	Amount (Millions)	Index Numbers
1910	\$5,280	92	\$5,700	89		\$10,980	90
1911	5,430	94	6,073	94		11,503	94
1912	5,860	102	6,595	102		12,455	102
1913	6,020	104	6,658	103		12,678	104
1914	6,248	108	7,182	112		13,430	110
1915	6,912	120	7,499	116		14,411	118
1916	8,288	144	9,504	148	\$ 48	17,840	147
1917	9,923	172	11,194	174	156	21,273	174

These figures show a very pronounced growth in bank deposits since 1913, and that growth is roughly the same for the national banks, and for state banks and trust companies combined. For

⁸ Average for dates of five or six comptroller's calls each year.

⁹ Computed from figures published each year by the Comptroller of the Currency and referring to a date about June 30.

¹⁰ Figures are averages for the government deposits on the approximate dates of the comptroller's calls for national banks each year so as to correspond as nearly as possible with the figures for deposits of national banks given in the first column.

the period 1913-1917, the increase is 65 per cent for national bank deposits, 68 per cent for state bank and trust company deposits, and 68 per cent for the combined deposits of national banks, state banks, trust companies, and the government deposits of federal reserve banks. Total cash reserves of banks, it will be recalled, increased 51 per cent between 1913 and 1917. Bank deposits having grown therefore more rapidly than bank reserves, it follows that each dollar of reserve money is now supporting a larger superstructure of bank deposits than before. This fact will appear from the following table, based upon the figures given in Tables 6 and 8:

TABLE 9.—PERCENTAGE OF CASH RESERVE TO TOTAL DEPOSITS

Year	Percentage
1910	12.5
1911	12.6
1912	12.0
1913	11.7
1914	11.7
1915	11.9
1916	10.7
1917	10.6

The average percentage of cash reserve to deposits is therefore about 1 point lower than it was just before the war, and nearly 2 points lower than it was in the year 1910. Measured percentage-wise the decline since 1913 is 9.4.

Bank Clearings

Another kind of information that will afford some evidence concerning the growth of our deposit currency circulation in recent years is the statistics of checks passing through the clearing houses of the country. For the period in question this is not as trustworthy an index as it usually is because of the fact that the establishment of the federal reserve clearing and collection system has diverted many checks from the clearing channels through which they otherwise would have gone. Clearing figures as an index of deposit currency circulation are therefore not strictly comparable for years prior to the development of the federal reserve clearing and collection system and years since that development. It may be worth while, however, as a sidelight on the subject, to glance at the testimony of the clearings without placing much dependence upon it. The figures for the total clearings of the country and the figures for the total clearings for the country outside of New York City are given separately.

TABLE 10.—BANK CLEARINGS OF UNITED STATES

Year	Total clearings		Clearings outside of New York City	
	Amount (Billions)	Index numbers	Amount (Billions)	Index numbers
1910	\$164	100	\$66.8	94
1911	160	97	67.9	96
1912	174	106	73.2	103
1913	170	103	75.2	106
1914	155	94	72.2	102
1915	188	114	77.3	109
1916	262	159	102.3	144
1917	307	186	129.5	182

In view of the large and increasing proportion of checks that have been handled during the last two years directly through the federal reserve clearing system, many of which do not pass through a clearing house at all, probably the above figures for the years 1915-1917 considerably understate rather than overstate the growth of deposit currency circulation. For the period 1913-1917 the total clearings increased 81 per cent, and those outside of New York City increased 72 per cent. Total deposits in the same time, we have seen, showed an increase of 68 per cent—an estimate of growth of deposit currency which would seem to be very conservative in the light of the evidence from the clearings.

We have now considered the evidence as to the growth of business in recent years and have attempted to measure the growth of the principal elements in the country's supply of circulating media. Before considering the evidence as to the movement of prices, let us bring together the results of the study so far made, and see what evidence they afford with regard to the subject of inflation.

Our index number of the growth of business showed that from 1913 to 1917 business increased 21 per cent.¹¹ During the same period the amount of money in circulation increased 45 per cent, and the country's supply of gold money outside of federal treasury vaults increased 76 per cent. Although the proportion of the country's total money supply (exclusive of that held in federal treasury vaults) which was outside of bank reserves, and therefore in active hand to hand circulation, declined slightly from 1913 to 1917, namely from 56 per cent to 54 per cent, the abso-

¹¹ Twenty-one per cent is the figure if one excludes the index item for shares sold on the New York stock exchange, and 26 is the figure if one includes that item.

lute amount outside of banks increased 40 per cent. If all exchanges were effected by means of money, and if money were no more and no less efficient in 1917 than in 1913, an increase of 40 per cent in the money supply accompanied by an increase of only 21 per cent in the physical amount of business done would represent inflation, and find expression in higher prices.

At this particular time, however, there are reasons to believe that the dollar in active circulation was becoming more efficient. This was the period of the revision of our federal banking system, and the inauguration of the federal reserve system. Certain features of that revision have enabled the average dollar in active circulation to do more money work than formerly. For example, the creation of the gold settlement fund has made possible transfers of many millions of dollars by means of book credits that would otherwise have required the shipment of currency from one federal reserve district of the country to another, and has therefore reduced the average amount of money tied up in transit. The establishment of twelve federal reserve banks, each with the privilege of note issue, and the establishment of a number of federal reserve branch banks, have brought sources of new currency supply nearer at hand in many sections of the country than ever before, and this has also reduced the necessity of currency shipment and has lessened the average distance of such shipments as are made. This result has been further promoted by the creation of the federal reserve clearing and collection system. There is little reason to doubt, therefore, that the average dollar in active circulation in the United States does its work more efficiently today than it did before the war. To increase the efficiency of the dollar in active exchange work is to increase the currency supply as truly as to increase the number of dollars. We may conclude, therefore, with reference to the money of active hand to hand circulation, namely the proportion of our total money supply that is normally outside of bank vaults, that since 1913 its supply has increased 40 per cent, as contrasted with an increase of 21 per cent in the physical volume of the country's business, and that the average dollar is probably more efficient today than it was in 1913. This conclusion points to inflation.

Much more important from the standpoint of inflation than the money in active hand to hand circulation is that in banks which serves as the cash basis of our vast deposit or check currency. To what conclusions do our statistical inquiries lead upon that

subject? In the first place, we may note that a slightly larger proportion of the total money of the country (outside of the federal treasury) is held in bank reserves against deposits now than in 1913, the proportion having increased from 44 per cent to 46 per cent. It is in bank reserves that money finds its most efficient use. In the second place, it is to be noted that the amount of money held in bank reserves against deposits has increased enormously since 1913. For that year the average amount was \$1,488,000,000, while for 1917 it was \$2,254,000,000, an increase of 51 per cent as contrasted with 21 per cent in the physical volume of the country's business. Not only has the amount of reserve money greatly increased since 1913, but each dollar in reserve is carrying a greater burden of deposits than it was prior to the war. In 1913 the average cash reserve to deposits for the entire country was 11.7 per cent and in 1917 it was 10.6 per cent. In other words, in 1913, 11.7 cents provided the cash support for a dollar of check deposits, while in 1917, 10.6 cents supported the same load. The last item alone represents an increased efficiency of the dollar, acting as reserve money, of 9.4 per cent.

It is probable that the efficiency of bank deposits themselves circulating through the instrumentality of checks has also increased since 1913 under the "speeding up" pressure of war needs, but on that point the available evidence is inadequate to justify a very positive judgment. Pointing in the direction of greater deposit currency efficiency is the fact that in 1913 the entire clearings of the country's clearing houses were 13.4 times the average bank deposit, while in 1917 they were 14.4 times that figure. If one excludes New York clearings, the respective figures are 5.9 and 6.1.¹²

The evidence therefore shows that a slightly larger proportion of the money of the country was in bank reserve in 1917 than in 1913, that the amount of cash in reserve increased much more rapidly than the business of the country during that period, and that each dollar in reserve provided the cash basis for a larger amount of deposits in 1917 than in 1913. Furthermore, the evidence makes it appear probable that the average bank deposit had a higher rate of turnover in 1917 than in 1913, or, in other words,

¹² In this connection the fact previously noted (p. 257) should be remembered: that between 1913 and 1917 there was a large diversion of checks from the regular clearing house channels to direct clearings through the federal reserve banks—a fact which would make the above figures for 1917 appear to be an understatement.

that a larger amount of check business was done in 1917 than in 1913 for each dollar of average daily deposit. Each of these conclusions points to inflation.

The results shown from the above statistics concerning bank reserves and deposits are not surprising when one recalls the great changes in our banking machinery which the Federal Reserve act with its amendment has wrought. In 1913 national banks in central reserve cities were required to keep cash reserve against deposits of 25 per cent. They are now not required by the law to keep any cash reserve whatever, although of course they do keep such an amount of cash on hand as they need for till money. The new law requires them to keep at their district federal reserve bank 13 per cent reserve against demand deposits, and 3 per cent against time deposits, and the federal reserve banks in turn are legally required to keep 35 per cent against deposits of bankers' reserve balances, although as a matter of fact they have always kept a larger percentage. The excess, however, in recent years has been a declining one. Thirty-five per cent of 13 per cent is 4.55 per cent legal cash reserve, as compared with 25 per cent in 1913.¹³

Similar reductions in legal reserve requirements were made for banks in reserve cities, where the change in legal minimum cash reserve was reduced from 15.62 per cent to 3.50 per cent, and in country banks where the reduction was from 7.40 per cent to 2.45 per cent.¹⁴

The great reduction in legal reserve requirements demanded by the Federal Reserve act was due to the fact that the country's commercial paper was made more liquid by that act, both through the rediscount privilege provided by the federal reserve banks, and through the development of an open competitive market for commercial paper. Banks no longer need to maintain large cash reserves, which are often comparatively idle, in order to be

¹³ These figures are subject to some qualifications. The present legal reserve requirement as compared with the old one is still further reduced when one allows for the fact that the full legal reserve was formerly required for time deposits, as well as demand deposits, in national banks, whereas now only 3 per cent is required against time deposits. On the other hand, transit items or items in float can no longer be counted as reserve money, nor can the 5 per cent Redemption Fund held at Washington for national bank notes.

¹⁴ It is here assumed that the country banks deposited 3/5 of their reserve in the reserve city banks, and that the reserve city banks deposited 1/2 of their reserve in the central reserve city banks.

able to carry the peaks of the load. They have a ready recourse for funds at the federal reserve banks in time of need. The federal reserve banks in turn have the power to meet sudden calls for funds through the issuance of federal reserve notes, or through the reduction, under emergency conditions, of their cash reserve below the normal legal minimum.

All this has greatly improved our banking system. It has made our cash reserves much more efficient than before; but in making them more efficient it has enabled a given amount of cash in reserve to do more work than before, and has therefore made money cheaper as compared with goods. In other words, it has caused inflation.

In this connection it is well to emphasize a fact often overlooked, that almost any improvement in a country's currency and banking system, unless offset by a contemporaneous increase in the physical volume of business, causes inflation. Improvement usually means greater efficiency in the machinery of exchange. If, for example, five billion dollars are needed by a country for its hand to hand circulation and its bank reserves, to do its exchange work and maintain its price level in equilibrium with the price levels of other countries with which it carries on trade, and if the currency and banking system of that country is now greatly improved in its efficiency, improved so much that four billion dollars will now do the work formerly done by five billion and do it equally well, then one billion dollars becomes relatively redundant as compared with other countries. This makes itself felt in temporarily lower call-money rates and discount rates on short-time paper, in higher prices of speculative securities and speculative commodities, and in unfavorable exchange rates on foreign countries. This is inflation. The excess currency, however, in normal times soon finds its way out of the country through the exportation of gold, for which the country receives the equivalent in other goods and in securities. The gold so released acts like new gold coming from the mines, and is apportioned throughout the world, bringing about a new and slightly higher world equilibrium of prices. For the country improving the efficiency of its banking system, the change has been a profitable one. It is using a less expensive exchange mechanism than before, and the work is done equally well. The unnecessary part of the old mechanism it has swapped for a little less than a billion dollars' worth of other goods that it needs. A temporary currency inflation was a necessary step in the procedure.

What would have happened, however, had there been an embargo just at that time, preventing the redundant gold from leaving the country? In such a case obviously the currency supply would have been kept at an abnormally high level. It would have been dammed up within the country. The level of prices would have risen, just as the level of a lake rises when the flow of water at the inlet increases, and the outlet is dammed up so that only a small quantity flows out. This is essentially what has happened in the United States. At the beginning of the war, we were big exporters of supplies to belligerent countries, and, on net balance, despite our large purchases of American securities from abroad, we had large sums due us. Hence the tremendous net importations of gold that this country has witnessed in recent years—importations which together with our home production have increased our circulation of gold money from about 1.6 billion dollars in 1913 to 2.9 billion in 1917. Our gold embargo¹⁵ has for some time prevented this gold from leaving the country in any considerable quantities and from going to those countries with which our exchange rates were unfavorable. To demand gold from the banks or the treasury, or to use it in circulation is now generally looked upon as an unpatriotic act. Every effort has been made in the United States, as in other belligerent countries, to impound the gold as far as possible in the vaults of the central banks where, to meet war emergencies, it may serve as a basis for the maximum amount of credit—bank notes and deposits. There is little incentive for a corporation or an individual to have gold coin in his possession. He cannot export it, and to spend it or have it in his pocket or till is to brand himself as unpatriotic.

Meanwhile all kinds of money, and deposits in solvent banks are at par with gold, but gold, and with it all other kinds of money, has been rapidly losing its purchasing power over commodities.

Prices

Let us now examine briefly the evidence with regard to price movements. There exist in the United States a number of index numbers of prices, which are familiar to the readers of this article.

¹⁵ The embargo was laid by a proclamation of President Wilson dated September 7, 1917. Under its provisions the exportation of coin, bullion, or currency from the United States was prohibited, except when specifically licensed by the Federal Reserve Board with the approval of the Secretary of the Treasury. Since that date gold exports from the United States have been very small, and the privilege of exportation has been jealously guarded. See *Federal Reserve Bulletin*, Oct. 1, 1917, pp. 736-739.

All of these price index numbers tell essentially the same story. The most comprehensive of them, in the field of prices covered, embracing as it does prices for about 292 commodities, and the one that is constructed upon the most scientific lines, is that of the Federal Bureau of Labor Statistics, and we shall therefore confine ourselves to the evidence afforded by this index number. Inasmuch as our previous figures have been constructed as far as possible on the basis of average conditions throughout the year, instead of for conditions on any one date each year, we shall use here average monthly price figures, except where otherwise designated. Adjusting the index numbers of the Bureau of Labor Statistics to the basis of the average for the five years 1910-1914 as 100, so as to make them comparable with our other figures, we arrive at the following result for the wholesale prices of all 292 commodities.

Year	Index Number
1910	99
1911	97
1912	101
1913	102
1914	101
1915	102
1916	125
1917	178

This shows an increase of 75 per cent from 1913 to 1917.¹⁶ An analysis of the figures shows that a substantial rise in prices took place in all kinds of commodities. Taking the nine groups of commodities into which the Bureau of Labor Statistics classifies the 292 commodities covered by its index number, we find that the average index number of 1917 increased over that for 1913 for the respective groups of commodities in the following percentage: farm products 88 per cent; food, etc. 77 per cent; cloth and clothing 81 per cent; fuel and lighting 69 per cent; metals and metal products 108 per cent; lumber and building materials 24 per cent; drugs and chemicals 85 per cent; house furnishing goods 55 per cent; and miscellaneous goods 53 per cent.

¹⁶ Comparing this figure with the figures for the other index numbers, we find the following result. From July, 1914, the month before the war broke out, to December, 1917, the *Annalist* index numbers showed an increase of 93 per cent, the Bradstreet index numbers an increase of 103 per cent, the Dun index numbers an increase of 84 per cent, and the Gibson index numbers an increase of 106.

Viewing the situation from another angle, and comparing individual prices for December, 1917, with those for July, 1914, we find that of the thirteen items of animal products covered by the Bureau of Labor Statistics figures every one increased decidedly in price during that period, the increases varying from 37 per cent to 158 per cent. For vegetable products, eleven in number, the price rose decidedly for all but one (potatoes) where there was a decline of 10 per cent for the dates mentioned. Of the other ten items, the smallest increase registered was 46 per cent, and the largest 233 per cent. Of the thirteen items classified under textiles and leather goods, every one increased decidedly in price, the smallest increase for any item being 51 per cent and the largest 208 per cent. For the fourteen items of mineral products, every one likewise increased decidedly in price, the smallest increase being 17 per cent, and the largest one being 200 per cent.¹⁷

The index number for the retail prices of food in the United States prepared by the Bureau of Labor Statistics shows an average increase from 1913 to 1917 of 46 per cent.

There is ample proof, therefore, of a very great rise in prices since 1913, and that this rise has affected all classes of commodities, although it has naturally affected different classes of commodities and different commodities within each class differently, because each commodity has its own peculiar conditions of production and demand. The advance has naturally been greatest for those items upon which the war demand has been most concentrated.

There is some evidence that the prices of real estate have fallen in recent years on the whole, although the real estate market has not been a very active one, and we have no price statistics concerning it that are comprehensive and reliable. There is no standard unit of real estate. During the last few years, it is well known, prices of securities such as stocks and bonds have likewise fallen decidedly, on the average. Real estate and securities, however, are durable income bearers which yield their income usually over long periods of time. Their value therefore is to a large extent the capitalization of their prospective incomes at the current and prospective rates of interest. The period in question has been one in which interest rates on long-time obligations have risen very decidedly, and it is therefore natural that permanent

¹⁷ For details of these figures see Bureau of Labor Statistics, *Monthly Review*, February 1918, page 104.

income-bearers, like land and securities, should have their capital value greatly reduced, except in the cases of stocks where the dividends have increased more than enough to offset the decline in value that would otherwise have resulted from the advance in the current market rate of interest. In these cases, it may be said that the yardstick of value in terms of which future incomes are measured has been shortened in length, but that contemporaneously the interest rate has risen, or, in other words, the present relative importance of the right to a given future income as compared with a present one of the same size has declined.

Wages, which are but one kind of prices, have also risen since 1913; but, as is usually the case in times of a rapid rise in the price level, wages have risen much less rapidly. In a few special occupations, as for example those connected with the manufacture of war munitions, the building of cantonments, and the like, wages have risen more rapidly than prices, but in the main their advance has been much less pronounced. Through the courtesy of Dr. Royal Meeker, United States Commissioner of Labor Statistics, I am enabled to give in advance of their official publication the bureau's recently compiled index numbers covering rates of wages per hour, for union labor in a large group of occupations throughout the United States. The official figures are given in column 1 of the following table, and the same figures adjusted to the basis of the average for the period 1910-1914 as 100 are given in column 2.

TABLE 12.—INDEX NUMBERS OF UNION WAGE RATES

Year	Index numbers	
	1	2
1910	105	96
1911	107	98
1912	109	100
1913	111	102
1914	114	105
1915	115	106
1916	119	109
1917	127	117

This shows an increase of 14 per cent in union wages since 1913 as compared with 75 per cent in wholesale prices and 46 per cent in the retail prices of food.

We have now examined the more important evidence as to the extent of inflation in the United States, and as to its causes, and

have found reasons for believing that there has been a very substantial inflation of the currency and circulating credit of the United States since the war broke out, but more particularly during the years 1916 and 1917, and we have seen how this inflation has found expression in a very great rise in general prices affecting all sorts of commodities. Let us now inquire in conclusion as to the benefits which accrue to the public from inflation, and as to the evils of inflation.

Results of Inflation

Inflation, whether it is brought about chiefly by the excessive issue of paper currency, like the depreciated greenbacks of our Civil War period; by a great increase in the world's production of gold, like that of the middle of the last century or of the last two decades beginning about 1896; or whether it is brought about by the substitution in active circulation of other forms of money for gold throughout a large part of the world, and the building up of an ever increasing superstructure of deposit and bank note credit upon a proportionately smaller gold base, a procedure followed in recent years in the United States, England, and Canada—inflation, however brought about, carries in its trail certain evils. Chief among the evils which are following in the trail of the present war inflation are the following.

It is placing an undue proportion of the war's financial burden upon those least able to bear it. The generally accepted principle of justice in taxation is that taxes should be imposed in accordance with ability to pay. Inflation is distributing the financial burden of the war all too often in a manner directly in conflict with this principle. It is blind and often cruel in the distribution of the war finance burden. It hits hardest those with fixed or comparatively fixed incomes—many wage-earners, a large part of the small salaried class, also widows, orphans, and educational and charitable institutions whose incomes are largely funded incomes which do not rise as the cost of living advances. In all too many cases it takes from the thrifty wage-earner and gives to the extravagant profiteerer. To millions of people throughout the United States the increase in the cost of living during the last two or three years has been cruelly unjust.

It is giving the government for its bonds a money of increasingly low purchasing power, which the government will be called upon to pay back later, interest and principle, when presumably

the price level will have fallen and the dollar will have a larger command over goods than at present. The bond buyer, in other words, is giving the government cheap money and will presumably be paid back in dearer money. To the extent that the present bondholder and his heirs are the same persons who will be called upon to pay the taxes whose proceeds will be used by the government in the future to pay the principle and interest of the bonds, there may be no harm; but to the extent that the taxpayers of the next generation are different persons from the bondholders, grave injustice will result.

Inflation creates a dangerous optimism in the financing of the war, for it lulls the public, and often the authorities themselves, into the belief that it is getting the necessary wherewithal for financing the war more fully and more easily than it really is. If we inflate our circulating media enough we can doubtless float any loan we undertake. We can secure any sum of money we set out to secure, but that does not mean we shall secure the munitions, supplies, and labor, the obtaining of which is the only purpose of the government's securing the money. The money, of course, is only a means to an end. If we fail to secure the end itself, it avails little that we have secured what we originally thought would be the means. If we set out to obtain twenty billion dollars, the sum needed to meet imperative war expenditures for a given period, assuming a given price level, and if in securing that money, we so inflate the currency as to raise the prices of the things the government wants 25 per cent, we will have "a successful loan flotation," and be able to pat ourselves on the back that everything is going well, and that more rigorous economies in consumption are no longer necessary; but we will fail in our loan, for the government will have secured only eighty-cent dollars, or, in real purchasing power, only sixteen billion dollars instead of the twenty billion dollars actually sought for. We will have deceived ourselves, and such an optimistic delusion will be an obstacle in the way of those drastic economies in consumption and that nerve-racking speeding up of production that are so urgently needed for the successful prosecution of the war.

As commonly used the word inflation is generally a word of opprobrium, and, in the minds of many people, to speak of the benefits of inflation is like speaking of the virtues of the devil; but inflation with all its evils does bring some benefits. It has already been noticed that some inflation is an almost necessary incident,

although it may be a temporary one, to any increase in efficiency in a country's currency and banking system.¹⁸ Two more positive benefits may be noted.

Inflation brings rising prices, and rising prices within limits have a stimulating effect upon industry. The influence is largely psychological, but is none the less real. This idea is an old one and although it has sometimes been disputed it is generally recognized to contain an element of truth. It carries less weight, however, under existing war conditions than it would normally. At present many industries need to be stimulated but many others need to be suppressed. Rising prices stimulate industry indiscriminately—the nonessential industry as well as the essential—and the stimulus they give is therefore likely to do harm as well as good. Their influence works chiefly through the motive of profits, profits that are realizable because wages lag behind prices during an upward move; but times of great national emergency are times when patriotism not profits should be the dominant motive of industry.

Inflation, by causing rising commodity prices, we have seen, tends to force economies in consumption. No one doubts that at the present time the high and rising cost of living is pressing hard upon people and institutions with comparatively fixed incomes. For millions of people it has been a steam-roller to extravagances; and, unlike the excess profits tax, its pressure primarily has been exercised directly upon consumption rather than directly upon production. Inflation renders a useful service in so far as the rising prices it causes force people to reduce expenditures for luxuries in consumption goods, thereby curtailing the production of such goods and releasing labor and capital for the production of the things most essential for war purposes.

The pressure that inflation exerts is often cruel and very inequitably distributed. Probably the benefits of inflation can be obtained by methods involving less injustice—methods such as the curtailing of transportation facilities to “nonessential industries;”¹⁹ restrictions, through the instrumentality of the federal

¹⁸ See page 261.

¹⁹ Strictly speaking, industries are not essential and nonessential, but rather merely more or less essential. It is difficult to think of any industry that is not to some extent essential, while even munitions are to some extent shot away in summer resorts in shooting galleries. The differences in degree, however, are so great as to amount to differences in kind. With this understanding the terms essential and nonessential are permissible.

reserve authorities and the proposed War Finance Corporation, on loans to nonessential industries and on the flotation by such industries of new securities; the inauguration of a rationing policy; and the resort to taxes in an increasing degree as compared with bond issues as a means of securing funds. Inflation as a deliberate national policy should be tolerated only as a last resort. But the labor and capital resources of the country must be applied vigorously and to a rapidly increasing extent to the serious business of war. The public must economize, and economize rigorously. Nonessential industries must be cut to the bone. If inflation with all its cruel injustice for this generation and with its menace of injustice for succeeding generations is a necessary means to that end, then inflation must be tolerated. Economic justice to individuals in the distribution of the war burden is an important desideratum; but the nation is more than the individual, and a higher ideal than temporary justice in the distribution of economic burdens is the preservation of democracy.

E. W. KEMMERER.

Princeton University.

CREDIT EXPANSION UNDER THE FEDERAL RESERVE

Undoubtedly the most important aspect of the work of the Federal Reserve Board has been its attempt to conserve the country's gold supply. With this problem it has been consistently occupied since the establishment of the new system. By one means or another it has endeavored to make the reserve banks the reservoirs into which should flow the gold supply of the country. And it cannot be denied that in this work it has achieved marked success. Today the gold holdings of the reserve banks exceed \$1,700,000,000, an amount surpassing that of any other banking system in the world.

This concentration of gold has rendered possible an enormous expansion of bank credit. Gold lodged with reserve banks permits the several-fold extension of their book credits, which in turn comprise the reserves of member banks. Gold, therefore, when held by reserve banks, supports the greatest possible volume of credit. For counter money member banks now may effectively use federal reserve notes. These notes are secured by a minimum gold reserve of 40 per cent. Gold accumulated in reserve banks accordingly has a multiplied efficiency as reserve money. Furthermore, the amendment of June 21, 1917, greatly lowered the reserve requirements of member banks. The surplus gold holdings of the reserve banks alone are now sufficient to permit member banks to issue additional credits to an amount almost equivalent to the present deposit liabilities of national banks.

At the inception of the federal reserve system, machinery by which the board might gain control of any large amount of gold appeared to be lacking. It is true that upon the maturity of the commercial paper, on the basis of which the notes had been issued, gold or lawful money might be deposited with the federal reserve agent.¹ Such money collateral would obviate the necessity of depositing further paper or returning the notes. But inasmuch as this gold must correspond dollar for dollar to the amount of notes thus secured it was not believed that it would be deposited in any large amounts as "cover." Unlike the gold, the notes could not be counted as reserve money by reserve banks. Neither could the notes figure as reserve money to member banks. It was accordingly quite generally believed that member banks would speed-

¹ The member of each district board who is the medium of communication between the reserve bank and the Federal Reserve Board.

ily send in to the reserve banks these notes for redemption, and that the reserve banks would not voluntarily choose to keep them outstanding by depositing lawful money with the reserve agents.

But these opinions overlooked the fact that for cash payments to the general public the reserve notes were as good a currency as any, and that so long as their legal reserves were sufficient member banks would suffer no loss in holding these notes in their vaults. The reserve administration accordingly was able to go far in inducing member banks to accept the notes. On the maturity of the original commercial-paper collateral the reserve banks could keep the notes outstanding by depositing lawful money with their reserve agents. The extent to which this practice was carried out may be illustrated by the following figures chosen at approximately yearly intervals. On July 2, 1915, the total amount of notes issued to the reserve banks was \$84,000,000. As security for these the federal reserve agents held lawful money to the amount of \$70,000,000. By June 30, 1916, the amount of notes issued was \$176,000,000. On this date \$165,000,000 of the cover was lawful money. On June 29, 1917, \$402,000,000 of the security for \$550,000,000 notes was legal tender money. In substance, a large portion of the notes had become merely gold certificates.

The wisdom of this policy, however, did not pass unchallenged. The *Commercial and Financial Chronicle* condemned in no uncertain terms the practice by which the reserve notes were kept continuously outstanding; it argued that they should be retired on the maturity of their paper collateral, and that in keeping them out in circulation by encouraging deposits of gold the reserve board was usurping authority.²

No apology for this practice, however, was forthcoming from the reserve system's officials. As typical of their replies we may take that of Governor Strong of the New York district.³ First, he denied that the securing of notes by gold exceeded authority granted by the act. If it had been intended that the notes should represent only commercial paper, a simple provision could have been inserted to that effect. The purpose of the act was clearly to render the notes a part of the general circulation, and the policy of the board was designed merely to hasten this result. Neither

² See *Commercial and Financial Chronicle*, August 7, 1915, pp. 398-400.

³ *Ibid.*, pp. 412-413. The policy of securing notes by gold deposited with the reserve agent had been carried to the greatest extent in the New York district.

did he believe that the accumulation of gold in this way was inflationary. On the contrary it meant the restriction of bank credit. For neither by reserve nor member banks could the notes be counted as reserve money.

But indicative particularly of the board's belief that control of the country's gold should be vested under its management are the following remarks of Paul M. Warburg:⁴

We are faced with the simple question: Will we be strong enough to share our plenty, during the coming period of stress, with other nations and be the world's banker, or will we be so weak that, when these demands come, we must stop them at once by raising our discount rates high enough to retain our gold at home? Keep all the gold in your vaults, gentlemen, where it is useless for yourselves and deprived of the additional force that it may gain in the hands of the federal reserve banks; keep every cash-till in hotels, railroad stations, dry-goods stores and what not, filled with gold certificates, and you will rob the country of its legitimate opportunity of growth, of helping itself, and of helping the world. Our foreign competitors will proclaim that only a country willing to part freely with its gold may safely be accepted as a world's banker, and they will point to the fact that in past critical periods, our banks stopped paying in gold. It is our duty to give to the world an overwhelming evidence of our ability and determination in the future to maintain our gold obligations under any and all circumstances.

It is therefore interesting to note a letter sent by the board on September 11, 1916, to the various reserve banks. The occasion was the issue of gold certificates by a reserve bank to supply the currency needs of its member institutions. Such a currency could be obtained a little cheaper than federal reserve notes. The board, however, expressed the hope that the reserve banks would not be influenced henceforth by the desire to save a small expense, and that whenever possible they would issue federal reserve notes, "thereby helping to concentrate gold certificates in the vaults of the federal reserve banks."⁵

The depositing of gold as the security for note issues would not, up to a certain point, render necessary any restriction of bank credit. Member banks could use the notes for cash payments quite as effectively as gold certificates, and some state banks could

⁴ See address delivered before the American Bankers Association at Kansas City, *Journal of the American Bankers Association*, Oct., 1916, pp. 307-319. For quotation see pages 313-314.

Cf., also address by Dr. A. C. Miller, also a member of the board, delivered before the Indiana Bankers Association, *Ibid.*, Nov., 1916, pp. 385-390.

⁵ See *Federal Reserve Bulletin*, Oct., 1916, p. 512.

count these notes as reserve money. Only when they should exceed the desired amount of till money need a bank deem them inferior to gold certificates. The principal limitation upon their reissue (the provision that the notes of one reserve bank could not be paid out by another reserve bank) concerned only the reserve banks. A member bank, however, could use for counter money the notes of any reserve bank. It need have no fears of becoming overstocked with the notes. If it found itself in need of reserve money it could quickly dispatch them to its own reserve bank and obtain gold or book credits, either of which would increase its reserve. The reserve board was accordingly able to go far in inducing reserve banks to deposit gold as a cover for the notes.

Nevertheless the notes must become unacceptable when issued in amounts exceeding the need of member banks for money with which to make cash payments. Any excess issues would be sent in to the reserve banks for redemption. With the possibilities of note issues thus restricted so also was the power of the board to draw in gold. Accordingly relief was sought by means of an amendment to the original act which became law on September 7, 1916. As regards reserves this amendment provided that:

Upon the affirmative vote of not less than five of its members the Federal Reserve Board shall have power, from time to time, by general ruling covering all districts alike, to permit member banks to carry in the Federal Reserve Banks of their respective districts any portion of their reserves now required by section nineteen of this Act to be held in their own vaults.⁶

This amendment did much to render the notes more acceptable, and accordingly increased the power of the reserve banks to draw in gold. Thereafter a member bank holding sufficient book credits with its reserve bank need not worry about the kind of money held in its own vaults. For circulation purposes the notes would be as good as gold.

But even with the law thus amended a member bank with surplus reserve would secure no outright advantage by shifting its reserve money entirely to a reserve bank. Such a course would not increase its loaning power. If it did not yield to the desire of the board it might still retain its gold, and this would subject it

⁶ See *Federal Reserve Bulletin*, Sept., 1916, p. 439. The board immediately ruled (Sept. 18, 1916) that until further notice "any member bank so desiring shall be permitted to carry in the Federal Reserve Bank of its district any portion of its reserves now required by law to be held in its own vaults." *Ibid.*, Oct., 1916, p. 508.

to no direct disadvantage. The reserve administration accordingly pressed its demands for a further amendment and on June 21, 1917, their proposed amendment became law. It rendered compulsory what previously had been left to the discretion of the banks. Thereafter member banks must hold their entire legal reserves on deposit with reserve banks. In other words, the only legal reserves would be credits with the reserve banks. The amount of till money would depend on the judgment of each member bank. For till money, however, the reserve notes would be as good as gold.

Since this amendment the credits member banks are required to hold with reserve banks have been as follows:

	For demand deposits (Per cent)	For time deposits (Per cent)
Banks in central reserve cities.....	13	3
Banks in reserve cities.....	10	3
Banks in all other cities.....	7	3

These changes render gold and legal tender money in reserve banks extremely efficient in furnishing a basis for member banks' deposit credits. Taking into consideration demand deposits only, and assuming no till money to be necessary, \$1,000 of deposit credits extended by a country bank may rest upon \$24.50 of lawful money in the possession of the reserve bank; for the member country bank might grant \$1,000 of deposit credits for every \$70 of book credits held with its reserve bank. Behind this \$70 of book credits the reserve bank need maintain only a 35 per cent reserve of lawful money, and 35 per cent of \$70 is \$24.50. The redepositing of its reserve thus permits a country bank to grant deposit credits so long as the actual legal tender reserve exceeds 2.5 per cent. In other words, a dollar of legal tender currency lodged with a reserve bank enables a country bank to extend \$40 of deposit credits. Under the old national banking system the utmost that could be done was to pyramid thirteen bank dollars upon one dollar of reserve money.⁷

⁷ Cf. H. J. Davenport, *Economics of Enterprise*, p. 262. Fifteen per cent of \$1,000 = \$150. Of this, \$90 might be deposited with a reserve city bank where the required reserve was 25 per cent. Twenty-five per cent of \$90 = \$22.50. Of this, \$11.25 might be redeposited with a central reserve city where a straight 25 per cent reserve must be maintained. Twenty-five per cent of \$11.25 = \$2.81. $\$60 + \$11.25 + \$2.81 = \74.06 , and $\$1,000 \div 74.06 = 13\frac{1}{2}$.

In other cities this amendment renders possible a still greater economy of reserve money. Under the old system the actual legal tender reserve for reserve city banks must be at least 15.6 per cent.⁸ Now it may be only 3.5 per cent.⁹ In central reserve cities, under the old system, a straight 25 per cent reserve was required. Since the amendment the minimum may be only 4.55 per cent.¹⁰

All this takes no account, however, of the need for till money. This, even if not fixed by law, must be added to obtain member banks' real cash reserves. Assuming average requirements for counter money to be 5 per cent and that this be composed entirely of federal reserve notes, against which a 40 per cent gold reserve must be maintained, 2 per cent must be added to the percentages noted above. But even with this addition made, the economy in the use of the country's gold and the possibility of expanding further the deposit credits of our banks is enormous. We have indeed drawn close to the English system wherein bank reserves consist largely of book credits granted by the Bank of England. But the English system is a product of slow development; whereas ours is one of sudden change. At no other time in history have there been freed, virtually on the moment, such masses of gold to furnish the basis for the manufacture of a still greater volume of credit dollars.

Particularly important in all this has been the federal reserve note. Without it a larger portion of the nation's currency must needs be held in the member banks' own vaults, thus lessening the amount of legal tenders available for the reserves of reserve banks.

After reaching a certain volume, however, further issues of notes must restrict the ability of reserve banks to grant deposit credits. Gold counted as a part of the reserve for notes could not be counted as a part of the reserve for deposits. Nevertheless, the amendment of June 21, 1917, paved the way for a still greater expansion of bank credits. Before that time lawful money

⁸ $\frac{25}{100} \times \$1,000 = \250 . Of this, \$125 might be deposited with a reserve city

bank. $\$125 + \frac{25}{100} \times 125 = \156 .

⁹ $\frac{10}{100} \times \$1,000 \times \frac{35}{100} = \35 .

¹⁰ $\frac{13}{100} \times \$1,000 \times \frac{35}{100} = \45.50 .

deposited with the reserve agent as cover must equal the amount of the notes. Such a procedure must, therefore, lessen the reserve for deposits. But this amendment provided that gold deposited as cover might be counted as a part of the reserve banks' 40 per cent note reserve. In case the gold reserve should be sufficient, notes could be kept out merely by depositing additional collateral with the reserve agent. In this way the reserve banks' gold could be made to support a larger volume of notes, and the limit further removed at which note issues would restrict the ability of reserve banks to grant book credits to member banks.

From the foregoing the inference may have been drawn that the federal reserve notes may be used for any counter money purpose. This, however, is not strictly true. By law they can not be issued in denominations under \$5. They can only serve, therefore, for the larger units, and of these there are several other forms of currency. But, on October 5, 1917, an act was passed which was designed to create a larger field for the circulation of the notes. To quote the *Federal Reserve Bulletin* on this matter:¹¹

The passage of the act of October 5, 1917, authorizing national banks to issue not more than \$25,000 each in denominations of \$1 and \$2 and authorizing them to issue notes of \$5 on the same basis as other denominations is intended to provide a larger volume of small bills. The Treasury Department, as is well known, has for some time past been converting large greenbacks or United States notes into notes of small denominations, thereby probably finding a permanent field of circulation for them. As the greenbacks thus move out of the larger and into the small denominations, an increasing field for Federal Reserve notes is opened. The Treasury, Federal Reserve Board, and the Federal Reserve Banks are consistently co-operating in substituting Federal Reserve notes for the circulation of gold certificates, and they are effectively supported in this undertaking by the national banks and those of the state banks and trust companies which have joined the system.

By these various devices notes have displaced a continually increasing volume of other forms of money, which money in turn has been drawn into the reserve banks, where it may be used so effectively in supporting bank credit. It is evident, however, that this process must be impeded so long as the great majority of state banks remain outside the system. By May 1, 1917, fewer than fifty out of eight or nine thousand eligible state banks and trust companies had become members.¹² But one section of the

¹¹ *Federal Reserve Bulletin*, Nov., 1917, pp. 833-834.

¹² See *Federal Reserve Bulletin*, May, 1917, p. 335.

amendment of June 5, 1917, was devoted to new regulations, designed, so far as deemed consistent with safe banking, to lessen the objections of these institutions to membership. "As the law now stands it leaves member state banks and trust companies practically undisturbed in the exercise of all the banking powers conferred upon them by the States. The law [as amended] provides also in definite terms the conditions upon which any state bank or trust company may withdraw from the system."¹³ Whether it be due to the changed terms of the act or to the belief that "membership in the Federal Reserve system is a distinct and significant evidence of patriotism,"¹⁴ applications for admission immediately increased. By Jan. 31, 1918, 296 state institutions, with total resources of more than five billions of dollars, had become members.¹⁵ It seems only reasonable, therefore, to expect the list of member state institutions to increase steadily henceforth. Inasmuch as the reserve requirements will be the same as for member national banks, the field is greatly increased within which the federal reserve notes may circulate, and from which the reserve banks may draw a larger and larger proportion of the country's gold.

In these ways the ability of the reserve banks to finance the credit requirements of the member institutions has been steadily growing. To what extent, we may now ask, has this power been utilized? The following table will serve to indicate the last calendar year's increase in note issues, the gold holdings of the reserve agents, and deposits credited to member banks. It also indicates the kind of collateral held by the reserve agents as security for the federal reserve note issue. The figures are for the last available date in each month and are given in millions of dollars, *i.e.*, 000,000 omitted (p. 278).

These figures show that in the course of the year note issues were quadrupled, gold holdings of reserve agents increased two and a half fold, and member bank deposits (the legal reserves of member banks after the amendment of June 21)¹⁶ more than doubled. Bearing in mind that each dollar of deposits with a reserve bank has been rendered much more efficacious in supporting member banks' deposit liabilities, that the notes have occupied a larger

¹³ Statement of President Wilson made public through the Federal Reserve Board. See *Federal Reserve Bulletin*, Nov., 1917, pp. 827-828.

¹⁴ *Ibid.*, p. 828.

¹⁵ See *Federal Reserve Bulletin*, Feb. 1, 1918, p. 92.

¹⁶ The final transfer of reserves was complete July 20, 1917.

Date	Federal reserve notes in actual circulation	Gold deposited with federal reserve agents	Commercial paper delivered to federal reserve agents	Member bank deposits
1917				
Jan. 26	259	273	19	687
Feb. 23	303	306	28	692
March 30	357	360	23	720
April 27	420	422	25	719
May 25	454	456	32	813
June 29	508	402	153	1,033
July 27	534	434	170	1,135
Aug. 31	587	493	156	1,069
Sept. 28	700	558	204	1,136
Oct. 26	847	614	303	1,264
Nov. 30	1,056	661	490	1,489
Dec. 21	1,227	746	602	1,389

and larger part of the till money reserves of member banks, it is unnecessary to conjecture further regarding the causes of that expansion of credit which added more than a billion and a half dollars to national bank deposits in a little over two months.¹⁷

All this, moreover, has taken place in such a way as by no means to eliminate possibilities of further expansion. On June 20, 1917, the national banks of the country possessed surplus reserves of \$842,000,000, an increase of \$41,000,000 over June 30, 1916. "On June 20, 1917, the central reserve cities held 19.7 per cent of reserve against a required reserve of 18 per cent. Other reserve cities held 22.45 per cent against a requirement of 15 per cent, while the country banks, which were only required to carry 12 per cent, held on June 20, 1917, a reserve of 25.33 per cent of their net deposits."¹⁸ Thus the amendment of June 21, 1917, lowering reserves was enacted at a time when reserves were already high.

But precisely how large are the surplus reserves of the reserve banks, and how much further expansion of bank credit may these surplus reserves render possible? Some indication should be furnished by the following paragraphs. The date chosen for these estimates is November 23, 1917; since November 20, 1917, is the latest date on which we have figures for the total deposits of

¹⁷ Deposits of national banks on November 20, 1917, were \$14,798 million. This was an increase of \$1,564 million over September 11, 1917, and an increase as compared with November 17, 1916, of \$2,309 million. See *Federal Reserve Bulletin*, Feb., 1918, pp. 90-91.

¹⁸ Announcement of the Comptroller of the Currency, Aug. 1, 1917. See *Federal Reserve Bulletin*, Sept., 1917, p. 666.

national banks. All figures are given in thousands, *i.e.*, 000 omitted.

1. Gold reserve for federal reserve notes.

On November 23, 1917, the gold reserve for note issues totalled \$635,497 (\$623,948 deposited with the reserve agents plus \$11,549 in the gold redemption fund).

On this date the notes in actual circulation totalled \$1,051,892.

The actual gold reserve was $\frac{635,497}{1,051,892}$ or 62.5 per cent. The minimum 40 per cent required would be \$406,356.

The excess reserve for notes was \$635,497 less \$406,356 or \$229,140.

2. Possibilities of further note expansion.

Supposing the excess reserve for notes to be used to support the maximum value of notes, a further note issue is possible of $2\frac{1}{2}$ times \$229,140 or \$572,850.

3. Reserve for member bank deposits.

On November 23, 1917, the net deposits of all the reserve banks totalled \$1,546,122; computed as follows:

Government deposits	\$196,411
Due to members (reserve account)	1,426,648
Due to non-members (clearing account)	22,291
Collection items	215,169
Total gross deposits	\$1,860,519
Due from other reserve banks, net	\$11,872
Uncollected items	302,525

Total deductions 314,397

Net deposits \$1,546,122

The gold reserve for net deposits totalled \$969,207, as follows:

Gold coin and certificates in vault	\$530,045
Gold settlement fund	385,662
Gold with foreign agencies	52,500

Total \$969,207

The gold reserve for deposits was $\frac{969,207}{1,546,122}$ or 62.6 per cent.

The total lawful money reserve for deposits (gold reserve plus legal tender notes, silver, etc.) was \$969,207 plus \$54,058 or... \$1,023,265

The lawful money reserve required (35 per cent minimum) would be 541,142

The surplus reserve for deposits was..... \$482,123

4. Possibilities of further expansion of deposit credits of reserve banks.

Supposing the surplus reserve for deposits to be used to support the maximum volume of member bank deposits, an increase in these is possible of $\frac{100}{35}$ times \$482,123 or \$1,377,494. This represents a potential increase of more than 95 per cent. (Member bank deposits with reserve banks on November 23 equalled \$1,426,000.)

5. Possibilities of further expansion in deposit liabilities of member banks.

Supposing that the required reserve for member banks averages 10 per cent, and that the \$1,377,494 should be used to the maximum amount to support their deposit grants to the public, an increase in these is possible of to 10 times \$1,377,494 or \$13,774,940. This represents a potential expansion of more than 90 per cent. (Total deposit liabilities of national banks on November 20 were \$14,798,000.) An increase of note issues by \$572,850 would probably furnish all the till money necessary to support the \$13,774,940 of bank deposits.

Such are the possibilities of expansion on the basis of the surplus gold of the reserve banks alone. In view of the huge surplus reserves in the vaults of member banks an expansion of much more than 100 per cent of national bank deposits is possible.

The reserve board has achieved notable success, therefore, in its endeavors to accumulate the country's gold in the vaults of the reserve banks. Thereby it has assumed the greatest of public responsibilities. For by its rediscount operations it controls the time, the circumstances, and accordingly the industries which shall benefit by this added supply of bank credit. It must choose between conflicting claims.

To what purposes, then, should the reserve banks' surplus gold be put? Should it be used at the present time to enable member banks to increase their loans to the business public, or should it be carefully husbanded to meet post-bellum requirements? Now is the time when this question of policy must be met squarely. The board that controls the largest surplus stock of gold the country has ever held surely ought not to content itself with mere day-to-day decisions. Let the maximum amount of credit be extended today and heightened commodity prices will render this gold unavailable for later purposes. More bank loans, and consequently more gold, will be needed to finance the same volume of transactions. Deflation can take place only slowly and gradually and with resultant depression to business.

In the minds of the great majority of the people the board can make but one choice. We are reminded that the present need for funds exceeds that of any previous period, that the gravity of the

war situation demands that every possible dollar be used to meet existing requirements regardless of any opportunities to come. National defense, we are told, supersedes all future trade advantages. By liberal offer of its credit the board should quicken, therefore, the course of present industry. If inflated prices result, these must be accepted as part of our sacrifice to the cause of democracy.

Each day, however, the fallacy of this view grows more obvious. It is becoming clear that the production of war supplies is fundamentally not a problem of securing dollars, but rather one of commandeering labor and materials. The real problem of war finance is to shift labor and equipment with the least possible delay from the unessential to the necessary war industries. No matter what financial program is adopted, it is clear that only by restricting the operations of the non-war industries can there be the largest possible increase in the production of military supplies. The stream of purchasing power that ordinarily flows to the one must in large measure be transferred to the other. The quickest transition can take place, not by increasing the total volume of bank dollars, but by diverting dollars from former fields of expenditures. The funds for financing war industries and activities should be obtained in largest part from the existing volume of money and credit.

In the last analysis the real gain from economizing our gold does not arise from an internal expansion of credit. By virtue of price adjustment domestic industry can accommodate itself either to a large or to a small volume of bank credit. The advantage of refining our credit system results rather from foreign-trade operations. To support our credit structure with less gold releases the surplus for foreign purchases, virtually enabling us to obtain the products of foreign industry without the expenditure of labor or the sacrifice of material on our part. To the extent, therefore, that foreign countries are not in a position to sell to us today, our surplus gold should be retained for post-bellum needs. In the measure that we use this gold at the present time to support domestic loans, and thereby inflate the general level of prices, we lose our power to reap the final and ultimate gains.

After the war the demands for our gold will be legion. Vast issues of bank and government paper have rendered the gold standard virtually inoperative in European belligerent nations.

The extent of the decline in their exchange rates can be explained only as resulting from the inability of those countries to pay out gold freely. Before the war broke out the gold reserve of the Bank of England was more than 50 per cent. Today it is less than 18 per cent. If European nations undertake the task of restoring the gold standard the need for our gold will be very urgent. If our banks are then in position to finance their requirements America may secure its position as the world's banker and establish the dollar exchange on a firm and permanent basis. Oriental and South American countries may continue to find in New York the credits for their international operations. In short, a position of world-wide financial supremacy awaits us if we are not now seduced to a policy of inflation.

The present financial situation is most critical. We have more gold than we ever had before, far more than suffices for any present needs. Only disadvantages are to be reaped in using it today; limitless opportunities await us in saving it for future needs.

H. L. REED.

Cornell University.

PRICE MAINTENANCE

The arguments advanced for and against the maintenance of resale prices fixed by manufacturers have in the vast majority of cases been put forth by interests which expected to be directly affected by legalized price maintenance. In comparatively few instances has the subject been considered in a scientific manner as a problem in economic policy. Little distinction has been made as to the various forms and motives of price cutting; while disapproval of predatory price cutting and of fraudulent advertising has been taken to mean approval of the legalization of price maintenance as a remedy.

Consumers' interests will in the long run be determining for or against the legalization of price maintenance. The consumer desires to satisfy his wants with minimum expense and effort. But in order that this may be brought about, adequate compensation for necessary producers must be provided, whether manufacturers or distributors. The long run interest may not conflict, but there may certainly be disagreement as to policy at any time among the various classes, manufacturers, distributors or consumers; such friction is inevitable. But no one interest can be seriously affected without ultimately influencing the welfare of the others. To justify a radical change in marketing conditions, net positive benefits to the public should reasonably be expected. And the burden of proof may fairly be said to rest upon the advocates of a change, the effects of which cannot be predicted with any degree of certainty. Proponents will have justified their position from the viewpoint of public policy when they have demonstrated, first, that price maintenance offers positive advantages and, second, that possible disadvantages are not more detrimental than abuses under the present system. Before proceeding to the crucial question of consumers' welfare, the interests of manufacturers and middlemen will be examined.

Price Maintenance and the Manufacturer¹

A system of fixed resale prices is favored by some manufacturers of identified articles because it seems to offer assurance of greater stability of profits. Price cutting is said to decrease the

¹ The repetitions of arguments and statements are so numerous both in the press and in the various hearings that no attempt is made in the subsequent discussion to give an extended list of specific references. Upon the attitude and interest of manufacturers in price maintenance may be consulted F. W.

volume of sales, therefore profits, and the manufacturer does not secure the returns to which he is entitled. Through persistent advertising, the maintenance of standards of quality, or otherwise, the manufacturer has built up a reputation or fund of goodwill; customers prefer the article of his manufacture to other similar articles. But the value of the article is said to be associated with its price; any reduction of price tends to leave the impression with the consumer that the article is not as desirable as before. From the viewpoint of the manufacturer this has two injurious effects. First, his goodwill is impaired because the customer ceases to prefer the article upon which the price has been cut. In the second place, the decline of consumers' demand and the lowering of the margin to retailers prejudices the dealers against the article; they refuse to handle it, or at least their interest in "pushing" it has declined. In these ways the volume of manufacturer's sales is unfavorably affected, his profits are decreased and the value of his goodwill is diminished. Therefore an enforceable plan of preventing price cutting, namely legalized price maintenance, is declared to be necessary in order to secure to the manufacturer the return upon goodwill to which he is entitled.²

The general validity of the protection to goodwill argument for price maintenance is questionable. To possess force it must be based upon three propositions: (1) that predatory price cutting has materially deprived manufacturers of the benefits of

Taussig in the *AMERICAN ECONOMIC REVIEW*, vol. VI, no. 1, Supplement, p. 171 *et seq.*; L. H. Haney, *ibid.*, pp. 188-190; W. F. Gephart, *ibid.*, p. 192; also Gephart, *Some Economic and Legal Aspects of Fixed Prices*, pp. 164, 170. The testimony of W. H. Ingersoll of the Robert H. Ingersoll Company, Sydney M. Colgate of Colgate and Company, and Henry C. Brown of the Victor Talking Machine Company represents the attitude of the manufacturers, in the recent hearings before the Federal Trade Commission (reported in *Women's Wear*, beginning October 5, 1917), as well as in the various hearings before congressional committees. The titles of the printed reports of these committee hearings are given in note 1 on page 28 of vol. VIII (March, 1918) of this *REVIEW*.

² It is evident that those manufacturers known as national advertisers are most interested in the legalization of price maintenance. Manufacturers who are unable or unwilling to undertake extensive advertising as well as manufacturers of unidentified products have no direct interest in the goodwill of the sort depending upon maintained prices. Statistics are not available as to the proportion of goods identified by trade-marks or otherwise. Rough estimates have placed the amount of branded goods in hardware and department stores at from 5 to 10 per cent; while it seems that the proportion is somewhat higher in the grocery and drug trades.

their goodwill, (2) that such deprivation of goodwill is socially undesirable, (3) that price maintenance is the proper remedy. Evidence seems to be contrary to the assertion that manufacturers have suffered. The differential advantage called goodwill may occasionally be built up upon the basis of advertising, without substantial merit of product or service to consumer. And it is believed that such predatory price cutting as does take place should be reached by other means than legalization of price maintenance.

The normal consequence of reduction in prices is an increase in volume of sales.³ But reasoning theoretically it is conceivable that price cutting might result in decrease of a manufacturer's sales. In order that this be brought about, either the demand for the goods must diminish or the existing demand must be less completely satisfied than before. Diminished demand would follow reduction in price only when the goods were of the sort which possess a value associated with price, a distinction value which is lessened when the price is lowered.⁴ The idea of exclusiveness or superiority impressed upon the minds of consumers by persistent advertising is an uncertain quantity, and may be weakened by price cutting in certain cases; although the social benefit of artificially creating a value which cannot withstand price cutting is doubtful. It may be seriously questioned if an article of merit will ever be injured by price cutting.

As to the second point, it does not seem that ordinarily the machinery for satisfying consumer demand would be so affected that ultimate restriction of manufacturers' sales would follow. The attitude of retailers toward an article upon which prices are cut is undoubtedly an important factor in affecting the volume of sales. If they consider the cut prices so low as not to give them the customary profit, jobbers and manufacturers may in turn be asked to shade prices, and may not be inclined to urge sales of the

³ Upon the effect of price cutting upon sales of advertised articles, see testimony of Homer S. Ames, Edward A. Wise, and H. B. Cheney before the Federal Trade Commission, reported in *Women's Wear*, Oct. 4, 30, and Nov. 16, 1917; also O'Donnell in *Printer's Ink*, Jan. 20, 1916, p. 47; and thesis written by Mr. Raymond B. Callahan upon basis of questionnaire to housewives of New York City. Further consult J. R. Turner, *AMERICAN ECONOMIC REVIEW*, vol. VI, no. 1, Supplement, p. 198; Report I, pp. 11 *et seq.* (testimony of Mr. Louis Brandeis); and Report II, p. 6 (testimony of Dr. P. H. Nystrom).

⁴ F. W. Taussig, *Principles of Economics*, vol. I, p. 130.

article. That they will generally refuse to handle it is open to question. Advertising by manufacturers direct to consumers is undertaken for the purpose of creating "consumer demand," the creation of which is looked upon as a method of securing influence over middlemen; a recognition of the fact that retailers must carry in stock what consumers demand. If that is true, price cutting upon a superior article known to consumers will not eventually restrict the distribution of an article, because the customer will continue to demand it; in the long run it is no less necessary for middlemen to serve the public than for manufacturers.⁵

As in the case of many broad problems in economics, verification of theoretical conclusions is a difficult matter. The conspicuous absence of statements of fact in discussions of price maintenance lays both proponents and opponents open to criticism. There seems to be little indication in the evidence that business men in general, including manufacturers, have been much harmed by price cutting. Advocates of price maintenance picture price cutting as a business practice which will have disastrous results upon all interests; opponents, on the other hand, assert that price cutting of the predatory sort is only a sporadic occurrence.⁶ That unfair price cutting takes place is not open to question; but there is wide variation of opinion as to its extent and results.⁷ Chal-

⁵ There are certain practices common among the advocates of price maintenance which have as much bearing upon the character of the distributive system as price maintenance or price cutting. Quantity discounts given to the large retailers, or jobbers' discounts given to certain retailers who may or may not be in the jobbing trade besides, furnish an argument for variations in retail selling prices, place the small retailer at a disadvantage in buying, and therefore, from the point of view of the manufacturer, tend to have the same effect upon the distributive system as price cutting.

⁶ As far as the consumer's appraisal of an article is concerned, both those cut prices resulting from honest endeavor of the distributor to share the effects of lower costs with the public and the cut prices for the purpose of attracting customers and selling them other articles of doubtful value tend to have the same effect. The motive of the retailer in the latter case is not published.

⁷ The majority statement of the Committee of the Chamber of Commerce of the United States says that it has records of "literally hundreds of cases of damage inflicted upon the interests of manufacturers, wholesalers and small retailers." But absence of detail is conspicuous here, as well as in the voluminous testimony before congressional committees and the Federal Trade Commission. *Report of Committee of Chamber of Commerce of the United States on Maintenance of Resale Prices*, p. 21. The minority statement (*ibid.*, p.

lenges of opponents to produce instances of actual injury to articles of merit by price cutting have not, as far as can be ascertained, been satisfactorily answered. Statistics of failures and balance and income sheets of national advertisers which strongly advocate price cutting, as well as of those which are non-committal, give no evidence that price cutting has been disastrous to manufacturing interests. The dividend rates vary widely, some showing small or moderate profits, others very large; while goodwill and trade-marks were in some instances capitalized at huge sums, upon which dividends were paid.⁸

That price maintenance, at least temporarily, offers greater assurance of stable profits and sales to manufacturers of identified articles who have already built up goodwill may be granted. But it also offers greater resistance to new manufacturers who

14) contains the following assertion, "The Minority Committee has been unable to ascertain one well defined case of the failure of either a manufacturer, jobber or retailer resulting from price cutting on identified goods. Nor have they been able to establish that the sales of any well known articles have been stopped or its popularity been injured by price cutting." In the testimony before the Federal Trade Commission, October and November, 1917, Professor Samuel McCune Lindsay arguing against price maintenance speaks of unfair price cutting as "incidental." Reported in *Women's Wear*, Oct. 4, 1917. Cf. L. H. Haney, *AMERICAN ECONOMIC REVIEW*, vol. VI, no. 1, Supplement, p. 190.

⁸ It seems that if price cutting were very common and disastrous to business, such effects would be reflected in the statistics of failures during the past few years. Statistics issued by the Bradstreet Company in *Bradstreet's Journal*, January 27, 1917, show that the percentage of business enterprises failing in 1915 was 1.17, in 1916, .92. Of these *Bradstreet's* assigns as due to competition 5.7 per cent in 1915, and 4.2 per cent in 1916; that is, of the total number of business enterprises, six hundredths of one per cent failed in 1915 because of competition, and in 1916 less than five hundredths of one per cent. Under competition are included forms which could not be classed as price cutting. Making wide allowances for faultiness in classification and inaccuracies in figures, there is nothing to indicate that business men as a whole, either manufacturers or distributors, have suffered business disaster from price cutting to any extent. The percentage of failures is no greater in 1917 than it was prior to 1900.

Information as to earnings of manufacturers of identified articles now on the market as compared to other business concerns does not give much light upon the question. Some of the most active proponents of fixed resale prices are closed corporations upon which few data are published. The general impression gained by the writer from the examination of a large number of published statements of financial conditions found in *Moody's Manual of Industrial Securities*, 1917, was that as a rule the makers of advertised products were prosperous.

wish to enter the field.⁹ Necessarily a new manufacturer must procure larger means in order to establish himself against powerful competitors. He must advertise extensively. If, as advocates of price maintenance claim, competition would not be lessened, some new firms would be successful in breaking into the market, involving restriction of the sales (or decrease of return upon goodwill) of those already in the field. On the other hand, if the hold of the existing firms on the market is sufficiently strong to prevent newcomers from obtaining a foothold, it would seem that such protection as is afforded by price maintenance would neither be needed from the viewpoint of the manufacturers of identified articles themselves nor be advisable from the viewpoint of public policy, as tending to increase monopolistic control of the market. That legalized price maintenance would not give manufacturers operating under it a monopoly because the consumer will not continue to buy articles which are not satisfactory both in quality and price involves two assumptions;¹⁰ namely, that substitutes are available and that the consumer is a competent judge. For many articles, especially those protected by patent or copyright, no substitute is available; while the difficulty of dislodging an already established producer of trade-marked articles operates likewise to prevent the increase of substitutes. The second assumption, that the consumer is a competent judge, may not be incorrect, but it is inconsistent with the statements that price maintenance is necessary to prevent "price cutters" from palming off inferior goods upon the public at high prices.

Lastly, it seems that price maintenance as a policy would have little effect in the direction of lowering costs of manufacture. The only methods by which costs could be decreased would be (1) by the better utilization of existing capacity, either by more complete utilization¹¹ or increased efficiency; and (2) by increasing the scale in such industries as are subject to the law of increasing returns. There is little reason to believe that price maintenance would lessen costs in either manner. In the first place, if price

⁹ William F. Gephart, *Some Economic and Legal Aspects of Fixed Prices*, Washington University Studies, vol. II, pt. II, no. 2, April, 1916, p. 165.

¹⁰ Gephart, *Some Aspects*, etc., pp. 165-166.

¹¹ If competition between manufacturers is not decreased, so that something akin to monopoly is operative, continued full utilization of capacity would be no more likely to occur under price maintenance than under present conditions. There is nothing in price maintenance *per se* to bring a closer adaptation of industrial equipment to needs.

maintenance were to become legalized, and identified goods much more common,¹² the share of a particular concern would be determined by its success in securing the goodwill of consumers and distributors. The average size of the manufacturing unit would depend upon the proportion of national income expended for the particular article and the number of establishments among which the income was divided. The share of the average income expended for particular articles might be influenced by advertising, but with typical incomes of the country moving as slowly as they do, the diversion of income to a particular type of expenditure through the influence of advertising would imply a decrease, or at least a lack of increase over considerable periods in the expenditures for other articles; so that the increased scale of production which might result from extensive advertising by numerous competitors in one line would be accompanied by a standstill or decrease in the efficiency and scale of enterprise in other lines. Within a particular industry, an increase in the size of the average manufacturing enterprise could take place only by an increase in the total demand or decrease in the number of concerns.¹³ Even if we assumed as possible an increase in the total demand for identified articles under a widely adopted system of price maintenance, there still remains to be proved the extent of the economies of large-scale production, a point upon which students of industrial organization are at present inclined to be more skeptical than in times past.

In the second place, if price maintenance assures manufacturers of the benefits of goodwill they have created through profits

¹² In discussions of legalized price maintenance it should be fair to assume that manufacturers as a class desire to avail themselves of its provisions. A great increase in identified articles would be the result. If few manufacturers employ the price maintenance policy or desire to employ it, such legislation is open to the charge of class legislation. If they do use it, then the advantage to the consumer of standardized products is in part lost, because it is necessary for him to choose between a large number of competing products; likewise it becomes more difficult and more expensive to create goodwill for competitive products.

¹³ In other words, the only way in which the average size of the business unit could be increased, unless competition were decreased, would be as a consequence of the increase in total demand for a particular class of identified article. Such increase would be brought about with difficulty, because of the comparative fixity of real incomes over considerable periods, the ever increasing variety of identified goods, the ever increasing variety of desires, and the welcome given the new articles.

considered by them to be satisfactory, it might also have a dulling influence upon the progress of the particular branch; because the need of constant alertness for change in the search for greater efficiency in order to maintain profits would be less pressing. Consequently it seems that price maintenance would have little influence upon bringing greater efficiency into manufacture, and therefore lower costs.¹⁴

Price Maintenance and Middlemen

a) Wholesalers.¹⁵ Middlemen other than retailers have not assumed a prominent part in the price maintenance movement. Some few wholesalers have expressed their approval of the measure; some their opposition. Their general silence is probably due to their desire to avoid the antagonism of manufacturers and retailers who may be actively interested. The interest of wholesalers will rest in part upon their convictions as to the probable effect of legalized price maintenance upon the retailers to whom they cater. If they believe that price cutting tends to eliminate the small independent retailer, and that price maintenance is a remedy, they may favor it as a means of retaining their clientèle; the more, if they think that price cutting encourages the development of the newer types of retailers who attempt to pass over the jobber and buy directly from the manufacturer at jobbers'

¹⁴ "It has not yet occurred to some of those who are frantically engaged in tampering with economic laws for the sole purpose of getting some of the national advertising that pays well, that there is already a very serious problem in wholesale dry goods markets growing out of the very thing they are trying to force upon the retailer, and which the retailer has succeeded in part in forcing on mills. That is, the stifling of initiative and individuality in fabrics by demanding that they shall be made to sell at certain fixed prices, say, 19c, 25c, 39c and so on. Those who have studied the genesis of this trouble are convinced that the fixing of prices in this way has fixed American textile development in limited channels." *New York Journal of Commerce and Financial Bulletin*, Nov. 19, 1915. Mr. E. A. Filene testifying before the Committee on Interstate Commerce, Jan. 6, 1917 (Report III, p. 209 *et seq.*), stated that legislation to legalize price maintenance was contrary to the best interest of manufacturers themselves because it made the manufacturers depend upon the support of paternalistic law rather than upon their own strength.

¹⁵ A limited amount of material upon the position of wholesalers may be found in Report I, pp. 283 *et seq.*, 287 *et seq.*, 292; Report II, p. 19; W. F. Gephart, *Some Aspects*, etc., p. 171. Testimony before the Federal Trade Commission by Mr. Colgate, reported in *Women's Wear*, Nov. 2, 1917.

prices.¹⁶ Likewise the jobber might favor price maintenance as a means of relieving him of demand for reduced prices by customers affected by price cutting. On the other hand, jobbers who believe that the retailer would not be injured by price maintenance, or who object to restriction would not register approval. The position of some jobbers as manufacturers or sellers of private brands would affect their attitude; since as distributors they might not be able to compete in advertising with manufacturers' brands, any movement to strengthen these brands would meet with disfavor. Assuming that they were able to advertise on an equal scale with manufacturers, their closer contact with retailers would render statutory legalization of price maintenance less necessary should they incline toward fixed prices.

If manufacturers generally availed themselves of the privileges granted them by a price maintenance statute to fix prices to wholesalers and retailers, the margin to wholesalers would thereby be fixed, regardless of differences of expense of handling business, and, in the absence of quantity discounts, regardless of the volume of goods handled. With a margin lower than the customary, there would be greater incentive to increase the number of private brands and to push these to the exclusion of the manufacturers' brands upon which prices were maintained; otherwise only large jobbers would have a sufficient volume of business to continue. If the margin allowed were comparatively high, incentive to improvement in methods would be lessened, because average efficiency would bring satisfactory returns. The precarious position of the wholesaler in certain lines at the present time seems in part to have been the result of his inefficiency. Competition, in the dry goods wholesale trade for instance, has resulted in the failure of some concerns, but it has necessitated the reorganization of others on more efficient lines.

Price maintenance ties the hands of the wholesaler more effectually than it does the retailer's. The wholesaler's recourse to additional service in selling to retailers is much more limited than that of the retailer in selling to consumers; consequently there would be a much nearer approach to suppression of competition, with the further result of decrease of incentive to greater efficiency, than would be probable in the case of retailing. The existence and justification of the wholesaler depends upon the effi-

¹⁶ Those jobbers who sell to the newer types or depend upon them for business would have less interest in the maintenance of the small independent,

cient rendition of his service; consequently any factor which tends to decrease that efficiency is in the long run detrimental to the wholesaler, even though temporarily it may give him larger profits and relieve him of the stress of competition.

b) Retailers.¹⁷ Manufacturers interested in the continuance of their distributors in business, and the retailers themselves have repeatedly urged the legalization of price maintenance as a necessary measure for the protection of retail interests, especially of the small independent retailer. Though the lines are not clearly drawn, regular retailers ordinarily purchasing intermediately from manufacturers through wholesalers are more prominent among the advocates than chain stores, department stores, and mail-order houses. The situation has given rise to the statement that the question of fixed prices involves the problem of the large versus the small retailer, of the regular retailer as opposed to the newer types. The assertion follows that price fixation by manufacturers is the means of protecting the small retailer from elimination. That at first thought the fixation of prices seems desirable to the small retailer is unquestionable. Apparently it relieves him of all competition in prices with other retailers, as to identified commodities generally and also particular articles which may be used as leaders. It seems to him a more comfortable policy, one which will make his position and profits more secure. Competition is said to be placed upon a higher plane in that competition in service takes the place of competition in price. The retailer is relieved of all worry as to cut prices, the most direct method of cutting down his margin.

It seems that the position of the small retailer under conditions in which price and quality were fixed would eventually be no more secure than it is now. The idea that there can be competition dissociated from price is fallacious.¹⁸ Competition in quality implies rivalry as to quality delivered for a certain price; competition in service implies rivalry as to amount and character

¹⁷ The interest of retailers in price maintenance is considered in Report I, pp. 9, 41 *et seq.* (Mr. L. D. Brandeis); Report II, pp. 5, 7 (Dr. P. H. Nyström), pp. 111, 117; Report II, pp. 248 *et seq.*, 310 *et seq.* (Mr. Wallace D. Williams), 209 *et seq.* (Mr. E. A. Filene), pp. 14 *et seq.* (Mr. Percy S. Straus), pp. 79 *et seq.* (Mr. J. M. Barnes); *Report of Committee of Chamber of Commerce of the United States*, pp. 16, 17, 26, 27.

¹⁸ L. H. Haney, *AMERICAN ECONOMIC REVIEW*, vol. VI, no. 1, Supplement, p. 186; *Report of Committee of Chamber of Commerce of the United States*, pp. 21, 23.

of service rendered in delivery of goods of a certain quality at a fixed price. Comparisons of value mean nothing if either price or quality is omitted from consideration; the consumer purchases the commodity plus a certain amount of service offered by the distributor at a certain price. But at a given price there may be rivalry as to quality of the commodity or as to the amount of service to be sold with the material good. If in addition the quality is maintained at the same level by manufacturers, then the only rivalry of producers must be directed to the one remaining outlet, namely that of amount of service.¹⁹ If certain types of retailers who sell at cut prices (except from malicious motives) are more efficient²⁰ than the small independent merchant, with maintained prices the former will be able to render greater service to the consumer as a means of attracting customers than the latter. Funds for advertising, probably swelled by maintained prices, would still be available for increased advertising, by which they could secure no less an advantage over the small retailer than they possessed before, though the public might not share in the benefits of their greater efficiency. In either case the disadvantage of the assumed inefficiency of the retailer would not be decreased. On the other hand, if the independent merchant is as efficient²¹ or more efficient than the other types, he does not need

¹⁹ Service is here used to include all the various services rendered by retailers in the creation of time and place utility, not only in assembling and storing commodities, but also in delivery, in the extension of credit, and the numerous other conveniences offered by various retail establishments.

²⁰ In so far as these retailers sell at cut prices because of lower buying prices from manufacturers (for the newer types of retailers frequently buy directly from the manufacturer), abolition of quantity discounts and special concessions often granted by manufacturer advocates of price maintenance would lessen the advantage of the newer types of retailers as opposed to small independents.

²¹ In the various hearings it is stated by the proponents of fixed prices that the small specialty store has lower costs of distribution than the department or chain stores; therefore, they should be retained in the distributive system as a matter of public policy; likewise it is stated that if chain stores and department stores parade cut prices, they must make up on other goods with higher prices quality for quality. Students of retail merchandising seem to be in essential agreement that the costs of doing business of the well managed specialty store are not higher than the costs of doing business of department stores. The cost of doing business in chain stores is declared by Dr. P. H. Nystrom, *Economics of Retailing*, p. 226, to be less than in average individually owned stores, though not as low as the best conducted individually owned stores. The same writer says (p. 199): "The department store has come into existence in response to an economic need. It has suc-

fixed resale prices in order to assure him his margin, provided sporadic unfair price cutting is controlled. The evidence is far from conclusive that price cutting, fair or unfair, has been the cause of serious injury to the small retailer.²² On the other hand, it is scarcely probable that any type of small retailer could continue to use cut prices upon identified articles and indulge in the misrepresentations attributed to them, to attract trade, if the purpose were always what discussions of fixed price advocates seem to imply.²³ Fraudulent advertising, sometimes closely connected with price cutting, is an abuse which can be reached by other measures than price maintenance. And pressure of ultimate demand operates more directly upon the retailer than upon any of the other business interests concerned in price maintenance.

If fixed prices would deprive the retailer of the device of attracting trade by cut prices given with the purpose of bringing people into the establishment and selling them something else at a high price, it would likewise restrict the retailer in giving his customers extra benefits with the idea of increasing volume of sales with a lower rate of profit upon each turn, or sharing savings due to increased efficiency.²⁴ Cut prices are the most potent

ceeded and has continued to hold its place and to gain ground because it has occupied a certain point of advantage in the distribution of goods."

²² Dr. Nystrom quotes figures (p. 314) to the effect that 1.4 per cent of failures in the retail business are due to competition. As he remarks, the larger number of failures never reach bankruptcy proceedings and get into the records; but it is probably fair to assume that the causes of failure are operative with about the same force for those not reported.

²³ Dr. Nystrom says (*ibid.*): "Untruthful advertising is not peculiar to department stores. Specialty stores have sinned in this respect as much as department stores, differing only in the degree to which they have used advertising." And again (p. 249): "Truthfulness of advertising is another important factor in the long run. Readiness of the firm to back up every statement made is the first principle in successful merchandising, not only in the mail order business, but in every other retail business as well. . . . It is probable that any misrepresentations which occur in the advertising matter of most of the large houses, at least, are due to error, rather than policy."

²⁴ It is argued that the retailer's right to reduce prices still remains as to unbranded goods and goods upon which manufacturers do not care to maintain prices. If the effect of legalized price maintenance were to increase greatly the number of advertised brands, the chances are that the price freedom of the retailers would decrease proportionately. And if there is no increase in the number of brands, either because of the controlling position of those already in the field or because of the fact that the majority of manufacturers neither need nor care to use the power given them of fixing resale prices, public interest would be still more opposed to the legalization of price maintenance.

attraction which a store can offer; there are people who prefer to trade where the policy of the establishment is low prices, even if the service rendered is inferior in amount to that offered elsewhere where prices are also higher. Excessive cuts in prices are rare, and the cutter, unless he cuts prices maliciously, may be hurting himself more than any one else.²⁵

Fixed resale prices are open to the fundamental objection that they do not take into account the unquestionable variations in the costs of distribution as between different middlemen in the same localities or as between middlemen in different localities.²⁶ That such differences exist there can be no doubt. The resale price selected by the manufacturer, if selected with reference to those who have high costs of production, will be unduly large for those who are more efficient; while if a lower level be selected, the margin will be unsatisfactory to many retailers whose goodwill the manufacturer is anxious to retain. The retailer under ordinary conditions has the choice of two policies to secure public approval; either of rendering service to the consumer in delivering a commodity to a consumer at a higher price, or of giving the customer less service and charging a lower price, *i.e.*, high price plus much service versus low price plus less service. The common chain store policy of no credit extensions and restricted or no delivery would be impossible under a system of fixed prices, because of the lack of the counter attraction of lower prices as an inducement to consumers to do without the service.

Further, price maintenance does not recognize the essential character of the work of the middleman.²⁷ Much peculiar economic reasoning is aired in the discussions, to the effect that the dealer is not the principal, but the agent of the manufacturer.²⁸

²⁵ Upon this point see testimony of Mr. Ames, before the Federal Trade Commission, reported in *Women's Wear*, Nov. 17, 1917.

²⁶ Cf. testimony of J. M. Barnes of Marshall Field & Company, Report II, pp. 79 *et seq.*; E. A. Filene, *ibid.*, pp. 209 *et seq.*

²⁷ L. H. Haney, *AMERICAN ECONOMIC REVIEW*, vol. VI, no. 1, Supplement, p. 185; W. F. Gephart, *Some Aspects*, etc., p. 169. Testifying before the Federal Trade Commission, Mr. Colgate is reported to have declared that the retailer's goodwill is of no value to branded goods. (*Women's Wear*, Nov. 3, 1917.)

²⁸ A statement of this idea is to be found in the record of the recent hearings before the Federal Trade Commission in the testimony of W. H. Ingersoll. Reported in *Women's Wear*, Oct. 6, 1917, pp. 17-18. Mr. T. T. Ausberry in a brief reprinted in Report II, pp. 326 *et seq.*, says that under price maintenance the retailer is made the agent of the manufacturer without the benefits of agency.

Price maintenance is essentially a proposition to allow manufacturers to fix the margin to be granted to retailers. It does not seem reasonable to suppose, however, that manufacturers are in a better position to select correct prices for goods than are retailers in competition with each other. And the selection of prices for the retailer, while it lessens competition in price, also lessens in part the stimulus to change, the incentive to greater efficiency. The dulling influence of price maintenance would in the long run react to the detriment of the retailers themselves as well as to the public at large.²⁹

A generalized system of price maintenance would in all probability not have the ultimate result of decreasing the costs of distribution. The amount of economically wasteful advertising, *i.e.*, the advertising not calculated to educate the public or create a new demand but simply to bring about the transfer of business from one advertiser, would be increased. At the same time, the margin allowed for retailers and jobbers in the fixing of the resale price would in the long run be fixed by competitive forces at an amount sufficiently high to secure their goodwill and coöperation.³⁰ Price maintenance, by increasing the margin of profit to the small dealer, implies the desirability of maintaining in our distributive system by artificial means members who are not able to compete with others in the same work. The ultimate elimination of the inefficient, both among distributors and among manufacturers, is a necessary accompaniment of progress in production as

²⁹ A system of fixed prices would not make the retailer any more efficient or more able to analyze his costs. Cf. W. F. Gephart, *AMERICAN ECONOMIC REVIEW*, vol. VI, no. 1, Supplement, p. 191; testimony of Professor Samuel McCune Lindsay before the Federal Trade Commission, reported in *Women's Wear*, Oct. 4, 1917, p. 17.

³⁰ The argument that a lower margin on advertised goods is as profitable to retailers, because of ease of increasing volume, as a higher profit on unbranded, unadvertised goods assumes that retailers are able to secure the greater volume. It is evident that in the absence of increase of total expenditures by the public, increase in the volume of sales by a retailer of a certain advertised article can take place only by shifting of demand from other advertised brands, from other articles or from other stores to the particular article at the particular store. Such shifting would bring no net gain to retailers as a whole, and might involve loss. The assumption of comparative stability in total expenditure for different classes of articles by consumers is more reasonable in view of the slowness with which real incomes rise than the statement that retailers generally could benefit by increased volume of sales.

well as in distribution. If price maintenance aims to maintain the present marketing system,³¹ it must provide for at least the customary rate of profit now received by distributors; otherwise the goodwill of distributors will not be secured. If price maintenance does not operate to retain it, the argument of price maintenance advocates concerning the beneficial results of the policy to the small independent retailer loses its force.

Price Maintenance and the Consumer

Unless consumers can satisfy their wants on more favorable terms under a legalized system of price maintenance than under the existing state of price freedom, the adoption of the policy is not justified.³² The consumer is interested in getting the most out of his income; to benefit most he must get as high a quality as possible at as low a price as will afford the necessary encouragement to continued productive effort. Quality cannot be dissociated from price in arguments as to the result of price maintenance or price cutting upon the consumer. It is alleged that price maintenance benefits the consumer because it furnishes him with the opportunity of securing standard brands, or identified articles of fixed quality, which are economical because they save him time, money, and effort, besides furnishing a standard for comparison. Identified goods are therefore declared to be as a class superior to unbranded in quality, and at least as low in price, quality for quality; while price maintenance is held to be necessary in order to assure accessibility to consumers. The last point will be considered immediately.

The argument that as a whole articles of merit will become less accessible under a system of price freedom than under a system of fixed resale prices does not appear to be valid. Price cutting does not ordinarily induce distributors to discontinue handling the articles, unless the goodwill built up by the manufacturer has

³¹ Professor F. W. Taussig asserts that the influence would be to maintain the *status quo*, AMERICAN ECONOMIC REVIEW, vol. VI, no. 1, Supplement, p. 181; L. H. Haney, *ibid.*, p. 184.

³² Upon the relation of consumers to price maintenance there are numerous references in all the hearings. The controversial literature on the subject contains vigorous assertions, many of which are exaggerated. Cf. testimony of Miss Mary Wood (Report III, pp. 283 *et seq.*, later testimony, *Women's Wear*, Nov. 15, 1917); Professor Samuel McCune Lindsay (*Women's Wear*, Oct. 4, 1917); Mr. (now Justice) L. D. Brandeis (Report I, pp. 22, 40); Dr. P. H. Nystrom (Report II, pp. 15, 30).

no substantial basis in the merit of the product;³³ in which case lessened accessibility may not be contrary to public welfare. The saving of time claimed for consumers under fixed resale prices by making it unnecessary to "shop" in order to secure the cut prices is a matter which concerns the consumer's right to dispose of his time as he sees fit.³⁴ Neither manufacturers nor middlemen are entitled to restrict the right of choice. Further, the statement that identified goods furnish a standard for comparison is an argument for identifying goods, not a reason for price maintenance.³⁵

As to quality, it is undoubtedly true that branded goods, identified articles, are often superior. Yet identification is not an infallible guarantee of either good or uniform quality; as Professor Taussig remarks,³⁶ some identified goods are good, some bad, some indifferent. The attempt is constantly being made to create the impression of superiority in the quality of nationally advertised articles. Even assuming that as a class such articles are superior in quality, it does not follow that price maintenance is necessary to maintain quality. Manufacturers brand goods to secure the goodwill of users; branding should imply the maintenance of quality and the placing of responsibility. Fixed resale prices add nothing to the identification value. If the article is of the sort whose capacity to satisfy wants rests upon its distinction value, it is conceivable that price cutting might so decrease volume of production that costs would increase and likewise the temptation to lower quality; or, in another way, the demand of middlemen for lower prices might have the same effect. But there seem to be few instances in which price cutting has been responsible for serious harm to manufacturers; therefore the inducement to lower quality is not great. Moreover, it is to be assumed that when such identified goods are of superior quality they are sold at a price corresponding; the manufacturer will secure his return in the prices received from jobbers and retailers. Branded goods as one means of standardizing quality are not to be discouraged. The difficulty of determining quality presents a serious problem to the consumer. But modern merchandising

³³ Cf., p. 286, above.

³⁴ Cf. Statement of Edward A. Filene, published by National Retail Dry Goods Association, p. 4; also Report III, pp. 209 *et seq.*

³⁵ The greater the number of identified goods, the more necessary it would be for the consumer to judge quality as in the case of unidentified goods.

³⁶ AMERICAN ECONOMIC REVIEW, vol. VI, no. 1, Supplement, p. 175.

inclines more and more to the opinion that the public is not as gullible as some discussions of price maintenance seem to imply.³⁷ Distributors have learned that continued success can be attained only by following the same upright policies which manufacturers declare compel them to give the public a good product at a fair price.³⁸ Standardization is not a reason why the manufacturer should be empowered by statute to fix resale prices, though in certain cases interference by the state has been found advisable, *e.g.*, in the pure food and drug laws.

Whether prices of identified articles are higher than those of unidentified articles of similar quality and character, is likewise a point upon which no more than a general statement can be made. It seems to be a general opinion that identified articles are higher in price than unidentified, but it is as stoutly maintained by advocates as denied by opponents that the higher price is no more than sufficient to offset the higher quality and greater convenience.³⁹

Resale prices of identified articles fixed by the manufacturer are based upon his calculations as to his own best interests. To use the terms popularized by Shaw, he has before him three

³⁷ No valid argument for price maintenance can be based upon the gullibility of the public. If the public is easily deceived, identified goods could be foisted on consumers at high prices; in such a case protection would be needed by the consumer against the manufacturer as well as the retailer. If the public is not gullible, manufacturers may rest assured that if they produce an article of merit, price cutting will not destroy their market; consumers will insist upon securing the article identified by brand.

³⁸ Extracts quoted in Nystrom, p. 204, illustrate this. "Advertisements of bargains are still printed, but the public is almost as impervious to them as the side of a battleship would be to a battery of pea shooters," and the statement of George Hough Perry, former advertising manager of Wanamaker's and Gimbel Brothers, who is reported to have said, "Bargain sales are passing rapidly into the limbo of exploded ideas, that all future tendencies will be toward emphasizing not price, but what can be had for the price."

³⁹ For instance, see statement of Cyrus B. Miller of the Federal Food Board of New York State to the effect that "on the average, advertised packaged goods cost at least 35 per cent more than the same in bulk." *New York Journal of Commerce and Commercial Bulletin*, Jan. 22, 1918. The majority statement in the *Report of the Chamber of Commerce of the United States* contains the assertion (p. 22) that in pushing identified goods upon which prices have been maintained "the consumer is assured a maximum of return for a known outlay." The course of automobile prices furnishes the stock example of the tendency in industries in which prices are maintained; but other factors will readily suggest themselves as accounting more satisfactorily for the lowered prices.

choices—the market price, the market plus, and the market minus.⁴⁰ However, in most lines, a price fixed at the outset corresponding to the market price would with the fluctuations in market prices become either market plus or market minus. If a market plus price is selected, either by conscious choice or by the decline of market prices upon similar articles, then it is necessary for the manufacturer in order to maintain or increase the volume of sales to give the impression in some way that for the excess over the market some additional service is rendered; the impression is created by various forms of salesmanship, especially advertising. Since the quality of many goods is indeterminate, not easily judged even by experts, advertising on an extensive scale may enable a concern to continue the market plus price without diminution of volume of sales in competition with other similar goods. If the market minus price is selected, the manufacturer hopes by cutting down his margin and lowering the price to the consumer practically to inhibit competition except on the same plane. The manufacturer in this case rests his claim to patronage upon the fact that he is giving more to the consumer than the market dictates.

Unless the manufacturer is successful in reducing his marketing costs, there is little opportunity for selecting a market minus price. The price selected for sale to consumers must include (a) the manufacturing and marketing outlays of the maker of the identified article, (b) the manufacturer's profit, and (c) the margin for middlemen. Examining these items, it becomes apparent that according to previous reasoning⁴¹ there would probably be little change in the costs of manufacture traceable to fixed prices. Again, it is not reasonable to assume that manufacturers of identified articles are more willing than business men in general to forego profits; in fact, they advocate price maintenance as a means of stabilizing and increasing profits. Further, the margin selected must be sufficiently large to allow for costs of distribution, plus an amount sufficient to secure the goodwill of jobbers and wholesalers.⁴² The manufacturer may feel that by

⁴⁰ A. W. Shaw, *An Approach to Business Problems*, pp. 234 et seq.

⁴¹ See page 288, above.

⁴² Mr. F. W. Nash of the General Chemical Company says: "To make the specialty attractive to retailers, it must bear a sufficient profit to make the net margin attractive in comparison with other brands or unbranded goods." *N. Y. Journal of Commerce*, May 8, 1916. Cf. also testimony of Mr. William H. Ingersoll before the Federal Trade Commission (reported in *Women's Wear*, Oct. 6, 1917, p. 18).

national advertising he has performed much of the selling function, and therefore the margin to middlemen need not be so great as on ordinary goods; yet under a generalized system of price maintenance a smaller margin will not secure the goodwill of the retailer. Consequently an allowance will be made which will give a satisfactory margin to the majority of middlemen; one perhaps not satisfactory to the least efficient, but one that will represent more than is necessary for the most efficient distributor; in short, at least as large as the margin which would be fixed by competitive prices without maintained prices.

Finally, it does not seem reasonable that under a legalized system of price maintenance the marketing costs of the manufacturer, including advertising costs, would be lowered, so as to make possible lower consumers' prices. The consumer must bear eventually the outlays of the manufacturer for disposing of his product; he must therefore assume the burden of advertising. From the point of view of public interest the problem is as to whether the methods of distribution which would be adopted by manufacturers under a system of maintained prices would result in an increase or decrease in the cost of distribution per unit of product. Many individual instances have been cited in which the unit cost of distribution for a particular concern has been lowered following an extensive advertising campaign.⁴³ From an economic point of view, however, advertising must be differentiated according to its effects. Some advertising undoubtedly increases total demand; other advertising merely causes existing buyers to transfer their purchases from one concern to another. The former may have some effect upon costs of distribution, lowering them for individual concerns, perhaps for all concerns in that line. The economic value of the latter is doubtful. Though lower costs to certain concerns may ensue, advantage to the public requires that the average costs be lowered and that the public benefit by the lower costs; neither of which is assured by such advertising.

If we assume a great increase in the number of identified and branded articles under a system of maintained prices, the consumers' interest becomes clearer. The purpose of advertising is the creation of goodwill, to establish a preference in the minds of purchasers for a particular article. The goodwill is a differential advantage which one producer possesses over other producers of similar articles. When many producers advertise, advertising

⁴³ P. T. Cherington, *First Advertising Book*, ch. XIII,

must be continued and increased not only to secure a differential advantage but to prevent being placed at a disadvantage. National advertising by one firm exercises as much pressure upon the manufacturers of similar products to advertise as price cutting does to compel other sellers to cut prices. Competition in the amount of advertising in order to keep a place in the market will involve a great deal of the sort of advertising which has no other effect than to increase the net costs of distribution. The concern whose advertising expenditures were largest would secure the goodwill, other things being equal. And the net result would not be lowered prices to consumers.

Fixed uniform prices deprive the consumer also of a possible share in the benefits of efficiency of certain retailers; neither can the consumer reap any advantage of location.⁴⁴ To many persons reduction in price for a given quality is a more desirable benefit of competition than an increase of service; yet under a system of maintained prices, they would be compelled to pay the same price irrespective of their wishes as to the purchase of service. It remains to be demonstrated that nullification of advantages of location is to the best interests of consumers. Whether transportation charges are paid by manufacturer or middlemen, they are ultimately borne by the consumer. If paid by the manufacturer, the fixed retail price will take no account of location; those nearest the source of supply will have to bear as large a proportion of the total costs of transportation as will far distant consumers. If charges are paid by middlemen, their margin must be sufficiently large to afford a satisfactory profit to those far distant.

The effect of monopoly upon public welfare is exerted largely through price control; it may not be illogical therefore to review briefly the various forms of the monopoly argument used with respect to price maintenance and price cutting. The advocates of price maintenance assert that price cutting leads to monopoly of certain types of distributors.⁴⁵ They look upon price cutting as a weapon used by the department stores and chain stores as a means of eliminating competition, just as local price cutting was used by the Standard Oil Company. Granting that some price cutting may be unfair and result in the failure of competitors,

⁴⁴ W. F. Gephart, *Some Aspects*, etc., p. 168; Statement of E. A. Filene, p. 4.

⁴⁵ For instance, the majority statement of the *Report of the Chamber of Commerce of the United States*, p. 27.

one may assert that the remedy applied in the Standard Oil case, namely the prohibition of the practice which was found to be socially undesirable, is the proper one, not the legalization of resale prices fixed by the manufacturer. But as stated above, evidence available does not indicate that department or chain stores or mail-order houses are securing monopolistic power, or that competition with them has tended to drive out the specialty store.

Price maintenance, on the other hand, is alleged by others to foster monopoly of producers, especially of large advertising manufacturers.⁴⁶ If price maintenance secured to advertisers the desired results, namely the protection of differential advantages constituting goodwill, a powerful concern might conceivably entrench itself so firmly that it would possess practical monopoly in that line. It is true that in the case of few articles are substitutes unavailable. Yet those substitutes may not be a practical influence. Nevertheless public opinion has expressed itself in no uncertain terms upon monopoly and unfair competition. Remedies have been provided for abuses, and general prohibitions imposed upon business practices contrary to public policy. These should tend to prevent the abuses of monopoly under a system of legalized price maintenance. They should be equally adequate to correct the price cutting evil if it is proven to lead to monopoly, contrary to public policy.

Conclusion

Under existing competitive conditions it seems that the adoption of a policy of uniform resale prices would not be in the public interest.⁴⁷ In the first place, the assurance of uniform and high quality would not be increased by such a system; present methods of identification are sufficient to secure to the manufac-

⁴⁶ W. F. Gephart, *Some Aspects*, etc., p. 193. Testimony of Dr. Lee Gallo-way, Report I, p. 73.

⁴⁷ In a former study, a historical sketch of price maintenance in the book trade, the writer came to no positive conclusions, but the statement was made that price maintenance possessed distinct advantages for all concerned if the price level chosen were the correct one. Subsequent study was approached with some inclination to favor price maintenance. But it appears now that the selection of the correct level is beyond the power of any class, and that an attempt to select it would be highly undesirable. Barring the question of government price fixation, in public service industries or under extraordinary conditions, competitive forces only can be depended upon to bring about the selection of prices in the public interest.

turer the benefit of goodwill honestly built up. There is no indication that manufacturers of advertised goods are any less successful in obtaining substantial rewards for services performed than any other class of business or professional men; consequently no necessity exists for additional inducement to maintain quality. In the second place, there is no assurance that quality for quality, prices will be lowered under a régime of maintained prices; on the contrary, there are reasons for believing that advanced prices will result. Under competitive conditions, fixed resale prices could have little effect in decreasing costs of manufacture or costs of distribution, while the latter would probably be increased by the impetus given to advertising. Since manufacturers and middlemen would not forego profits any more willingly than at present, the retail price could not be lowered. Furthermore, the consumer is deprived of any advantage of location as well as of opportunity to share in the benefits of variations in efficiency of middlemen.

Though it would probably not tend to save the small retailer if less able to render efficient service than retailing establishments of other types, price maintenance would restrict the channels of competition and would dull the incentive to progress both in wholesaling and retailing.

Legalization of the policy of fixed resale prices would undoubtedly accrue to the immediate benefit of the manufacturers who have built up large businesses upon the basis of extensive advertising and to the advertising interests themselves.⁴⁸ But it seems that the public has no more interest or plausible reason for guaranteeing stability of sales and profits to a group of manufacturers than to other interests. The goodwill possessed by manufacturers was built up because they considered it good business to make expenditures for that purpose. That there was risk was not overlooked. Reasoned expectations were that the reward would be sufficient to give return upon investment plus compensation for risk incurred. If loss has materialized in certain instances, legislating to guarantee returns to investments made under such conditions suggests the analogy of passing a law to permit insurance companies to refuse to pay losses because profits were decreased by a small amount of incendiarism.

The proposed bill for price maintenance must therefore be con-

⁴⁸ Report II, p. 309; also L. H. Haney, *AMERICAN ECONOMIC REVIEW*, vol. VI, no. 1, Supplement, p. 188.

demned as legalizing a policy which is contrary to the public interest, for the immediate benefit of a few who demand it but who do not need it. The bill gives power to manufacturers which are not accompanied by adequate safeguards for the consumer and middleman. To provide such safeguards would necessitate government supervision or fixation of prices upon manufactured products, involving questions which cannot be discussed here. Further, if passed, uniformity of enforcement of fixed resale prices would require the enactment of state laws to place intrastate commerce under the same restrictions as interstate. Moreover, it is probable that ways would be devised of evading the law, which would make it illusory, unless the government were to adopt means of enforcement as far reaching as are necessary to secure adherence to governmentally fixed prices. Unless the benefit were very clear, the public would not submit to such restriction.

Every observer and student of business affairs has noted with much gratification the rapid rise in standards of business morality. The tendency of the courts to uphold fair trading in every respect has been reënforced by the growing conviction among business men that unfair practices are bad practices, even if regarded solely from a selfish point of view. The common law and statutory prohibitions now in force as to unfair trading will be sufficient, with the aid of the courts, to deal with abuses of price cutting as effectively as public interest demands. The need will grow less as business continues in its progress toward higher ideals of conduct.

H. R. TOSDAL.

Boston University College of Business Administration.

THE PROBLEM OF LABOR TURNOVER

The typical handicraftsman of the Middle Ages pursued the same trade all his life, with the exception of the wanderjahr, in the same town. The Industrial Revolution has increased the mobility of labor in at least four different ways: (1) In the movement between countries. Individual migration as opposed to group migration has been the characteristic since the Industrial Revolution. The growth of America, Canada, and Australia during the nineteenth century was made possible largely by the development of steam power. (2) In the movement between different sections of the same country. The American of today does not stay predominantly in the place of his birth. He moves about from place to place. The Russell Sage Foundation found that of 22,000 men investigated in 78 cities, only 16 per cent had been born in the city in which they were then living.¹ Of native-born Americans, only one quarter were living in the city of their birth. (3) In the rapid change of residence in any given locality. The modern worker, while in a town, rarely lives long in any one apartment or house. He moves almost unceasingly. (4) In the frequent changing of positions. The workman may leave one plant to enter either another plant in the same industry or one in a totally different industry.² Recent studies have shown how transitory the modern wage relation is and how temporary is the occupancy of any particular position.

It is the purpose of this article to consider solely this rapid flux from position to position, and to examine its nature, extent, its cost, and its causes and remedies.

1. What is "Labor Turnover"?

The term "labor turnover" has been given to this rapid change from position to position. The size of the labor turnover depends upon the proportion that the total number of employees hired during a year bears to the size of the labor force that must be maintained. To illustrate: a plant which employs 1,000 men at the beginning and end of a given year hires during that year another thousand. That means that as many men have been newly hired as were employed at the beginning of the year and that

¹ L. P. Ayres, *Some Conditions Affecting Problems of Industrial Education in Seventy-Eight American School Systems*, p. 7.

² See Paul de Rousier's *The Labor Question in Britain*, p. 288 ff.

2,000 men have been employed during the year to fill 1,000 jobs. This is an excess of 1,000 men over what would have been needed had the original force stayed through the year, and is reckoned as a 100 per cent labor turnover. Had only 500 new men been hired during the year, the turnover would have been 50 per cent; had 2,000 men been hired it would have been 200 per cent.

In computing the labor turnover, however, allowance must be made for the growth or decay of an industry during the year. Suppose that the given plant, which employed 1,000 men at the beginning of the year, had increased its labor force to 1,200 by the end of the year; then 200 of the 1,000 men newly hired would not represent replacements but net additions to the working force, and 800 would constitute the actual replacements. The labor turnover in this case can be reckoned on either of two bases: (1) the number of workers employed at the end of the year, which was 1,200; (2) the average number employed during the year, which would have been 1,100 if the additions had been evenly distributed throughout the year. The labor turnover, by the first method, would be 67 per cent; by the second, it would be 73 per cent. Had only 500 men been newly employed during the year, the turnover would have been one of 25 per cent or 27 per cent; had 2,000 men been engaged, it would have been 166 per cent or 182 per cent. Had the total working force declined to 800 by the end of the year, the labor turnover would have been respectively 125 per cent or 111 per cent; 63 per cent or 56 per cent; 250 per cent or 222 per cent. Because of the confusion in computing the turnover in percentages, perhaps a better way to measure it is to state the average length of a job. If three months, it would be the equivalent of a 400 per cent turnover. Few investigations have measured the turnover in this latter way, however.

It is quite clear that some labor turnover is inevitable. Men who die or fall sick or are injured must be replaced. Since the men and women in industry are predominantly in those age groups where mortality is lowest, it is extremely probable that the death rate does not greatly exceed 10 per 1,000, or 1 per cent. Sydenstricker and Warren estimate that the American wage-earner loses on an average about nine days a year because of sickness alone.³ On a basis of 300 working days during the year, this

³ B. S. Warren and Edgar Sydenstricker, *Health Insurance, Its Relation to the Public Health*, Public Health Bull. no. 76, p. 6. See also *American Labor Legislation Review*, vol. VI, p. 156, which gives studies of Rochester, N. Y., and Trenton, N. J., that bear out Warren and Sydenstricker's estimate.

would be an average loss of 3 per cent of the working time. But a corresponding 3 per cent labor turnover does not necessarily follow, because illness that is only of short duration does not occasion replacement. Industrial accidents furnish another small source of the labor turnover. Non-fatal accidents may necessitate a replacement of from 1 per cent to 2 per cent. However, taken all together, these causes would not be responsible for a turnover of more than 5 or 6 per cent.

2. *The Amount of the Labor Turnover*

No complete survey of the amount of labor turnover in plants throughout the country is as yet forthcoming. The Bureau of Labor Statistics has been investigating this problem for over two years, but the results of their research have not yet been made public. Several studies of typical plants in different sections of the country, however, afford a birdseye view of the actual situation.

Mr. W. A. Gries, of the Jeffery Manufacturing Company, in December, 1914, made the first detailed analysis of the extent of the labor turnover. Mr. Gries obtained the employment figures of 20 metal plants in the Middle West and found that to maintain an average of 44,000 hands during the year, they were compelled to hire a total of 69,000. The labor turnover for these plants was consequently 157 per cent for the year.⁴

Mr. Magnus Alexander, of the General Electric Company, published a study on this subject in 1915. After an investigation of the employment records for 1912 of twelve metal manufacturing plants in six states, he found that this group, which employed 37,274 workmen at the beginning and 43,971 at the end of the year, had hired during that year 42,571 new employees.⁵ Deducting the net increase of 6,697 in the working force, there were 35,874 replacements during that year. Using the number employed at the end of the year as a base, this would be a labor turnover of 82 per cent. Supposing that the increase had been evenly distributed throughout the year and using 40,623 as a base, the turnover for these plants would be 88 per cent.

Mr. Boyd Fisher, after analyzing the employment figures for

⁴ W. A. Gries, *The Handling of Men* (published by the Executives' Club, Detroit Chamber of Commerce), p. 3.

⁵ Magnus W. Alexander, "Hiring and Firing, the Economic Waste and How to Avoid It," *American Industries*, August, 1915, p. 18.

the last year in 57 Detroit plants, found that the average turnover for the group was 252 per cent.⁶ The Ford Company from October, 1912, to October, 1913, hired 54,000 men to maintain an average working force of 13,000. This was a labor turnover of 416 per cent for the year.⁷ The figures from other plants are almost equally striking. A large Philadelphia concern had a labor turnover of 100 per cent in 1911.⁸ The turnover of the Plimpton Press was 186 per cent in 1912.⁹ The Pacific Telephone and Telegraph Company, of Portland, Oregon, hired 202 new girls in three months to maintain an average force of 700. If this is typical of the year, the turnover was 115 per cent. Mr. Gregg has stated that the turnover of the carding department of a certain cotton mill was over 500 per cent for one year.¹⁰ Representatives of the Goodrich Tire Company have declared that their turnover in former years was nearly 200 per cent and that for the last year it has been even higher!¹¹

The turnover for juvenile labor is especially high. The Board of Education of Rochester, New York, found that boys between the ages of fourteen and sixteen changed their jobs on the average every seventeen weeks.¹² This is a turnover for juvenile labor of over 300 per cent. The employment records of Swift and Company of Chicago show that the average term of employment for a boy in their service was only three and a half months.¹³ This means that nearly three boys and a half are employed every year for each position or, to be accurate, that there is a labor turnover of 342 per cent. Figures from Indianapolis, Indiana, show that of 6,710 jobs held by children leaving school, 7 per cent were for less than two weeks; 15 per cent for less than a month; 30 per

⁶ Boyd Fisher, "How to Reduce the Labor Turnover," *Annals of the American Academy*, vol. LXXI, p. 14.

⁷ Boyd Fisher, *Methods of Reducing the Labor Turnover*, Bulletin of the United States Bureau of Labor Statistics 208 (Proceedings of Employment Managers' Conference, p. 15).

⁸ J. H. Willets, "Steadying Employment," supplement to the *Annals*, vol. LXV, p. 70.

⁹ Jane C. Williams, "The Reduction of the Turnover of the Plimpton Press," *Annals*, vol. LXXI, p. 80.

¹⁰ R. C. Gregg, "A Method of Handling the Problem of Labor Turnover," *Textile World Journal*, April 28, 1917.

¹¹ John A. Fitch, "Making the Boss Efficient," *The Survey*, vol. 38, p. 211.

¹² *Fifty-sixth Annual Report of the Board of Education*, Rochester, N. Y., p. 142.

¹³ Bulletin National Association of Corporation Schools, April, 1916, p. 13.

cent for less than two months; and 48 per cent, or practically one half, for less than three months.¹⁴

The figures for manufacturing indicate, therefore, that the turnover for this branch of industry is extremely high. Mr. Ernest M. Hopkins, who has had a great deal of experience as an employment manager for several large industrial concerns, has said that a conservative estimate for many industries would be 100 per cent.¹⁵ Mr. Ethelbert Stewart, who was in charge of the field work for the Bureau of Labor Statistics, has stated that some firms have as high a turnover as 400 per cent.¹⁶

The turnover in many branches of agricultural and construction work is even greater. Professor Carleton Parker, in a most interesting study of casual labor on the Pacific coast, cites a dried fruit farm in California that had a monthly turnover of 176 per cent; a construction job in the Sierras, with a normal force of 950 men, which had a monthly turnover of 158 per cent; and a ranch with a nine weeks' fruit season which had a monthly turnover of 245 per cent.¹⁷ After a careful investigation, he concluded that the average duration of a job in certain kinds of work was as follows:¹⁸

	Days
Lumber camps	15-30
Construction work	10
Harvesting	7
Mining	60
Canning	30
Orchard work	7-10

3. The Cost of the Labor Turnover

A high labor turnover is not always an economic waste to the employer. A plant with many rush orders paying high wages may find it to its economic interest to drive its workmen at such a pace that they will be exhausted at the end of a few months. The old group of workmen can then be discharged and a new group employed. Many munition factories in the United States followed such a policy during the years 1915 and 1916. Though

¹⁴ Adapted from figures given in Bulletin no. 21, Indiana State Board of Education, *Indianapolis Vocational Survey*, vol. I, p. 119.

¹⁵ *Proceedings Third Annual Convention, National Association of Corporation Schools*, p. 758.

¹⁶ Bulletin of the United States Bureau of Labor Statistics 202, p. 8.

¹⁷ Carleton H. Parker, "The California Casual and His Revolt," *Quarterly Journal of Economics*, vol. XXX (Nov., 1915), p. 121.

¹⁸ *Ibid.*, p. 122.

this is of course poor economy from the standpoint of social efficiency, and has been so recognized in both England and America under the stress of war, yet it may well have been a paying policy for many firms.

As a rule, however, the employer suffers a very real economic loss from a high turnover. Although it is impossible to obtain exact figures on the cost of the excessive hiring and firing, careful estimates are fortunately available. The principal items that enter into the cost of employing new men are:

1. The clerical cost of hiring and firing. This includes the time of the official (generally the overseer) who discharges the old worker and employs the new, plus the time spent on the additional pay-roll and other records.

2. The cost of the instruction given the new employees by the foremen and the assistants. Even if the workman is experienced, considerable time must be spent in explaining the details peculiar to that particular plant. The cost of training a worker for a skilled or semiskilled position is much larger still.

3. Decreased production by the new worker before coming up to full working capacity. It takes time to "warm up" to one's work and reach the maximum of efficiency. Rapid shifting of men perpetuates this period of novitiation with its greatly diminished productivity.

4. Breakage and damage caused by the new man. This includes: (a) the actual breakage of a machine or tool; (b) the stoppage of a machine, or the delay of work; (c) accidents to the workers, for which the employer is liable under workmen's compensation laws; (d) the wasting or destruction of material upon which the new worker is employed.

5. The cost of idle machinery and equipment where the old position is not immediately filled.

The cost per man naturally varies with the type of worker. Alexander classifies the employees under five heads:

- A. Highly skilled mechanics who have spent years in attaining their present proficiency.

- B. Mechanics of lesser skill who secured their training in a year or two.

- C. Operatives who, without previous experience, can acquire a fair degree of efficiency within a few months.

- D. Unskilled laborers needing practically no training.

- E. The clerical force.

His careful estimate of the expense per man for the various groups is as follows:¹⁹

A	\$48.00
B	58.50
C	73.50
D	8.50
E	29.00

This is of course only an estimate, although a very careful one. Mr. Grievs estimated that the per capita cost averaged at least \$40.²⁰ Mr. John M. Williams, of the Plumb Company of Philadelphia, a tool-making concern, states that "the final cost per experienced man is over \$100."²¹

Mr. Alexander estimated that the annual unnecessary expense for the twelve factories that he covered was between \$830,000 and \$1,000,000. If Mr. Grievs's estimate of an average cost of \$40 is used, the total yearly loss for the twenty firms which he investigated was \$1,760,000 or an average of \$88,000 per firm. The yearly cost to the Ford Company for its 416 per cent turnover was over \$2,000,000. Since these are figures for only a few plants, the annual cost for the country as a whole must be tremendous. A most conservative estimate would be between one and two hundred millions.

4. Causes and Remedies of the Labor Turnover

This excessive shifting from position to position clearly demonstrates that something is wrong with industry. In diagnosing its causes, we are at the same time enabled to suggest certain remedies that may lessen it.

Some of the more prominent causes are:

1. Poor methods of employment and discharge. Men are generally hired *en masse* with little regard to their qualifications and fired summarily if they do not make good on the jobs upon which they are tried out. The power of employment and discharge is generally vested in the foreman of each department. These men are rarely skilled in the tactful handling and judging of men.

2. Poor methods of promotion within the factory. Work in one position rarely leads to a higher position. The workman, in

¹⁹ Alexander, *op. cit.*, pp. 20-21.

²⁰ W. A. Grievs, *op. cit.*, p. 5.

²¹ John M. Williams, "An Actual Account of What We Have Done to Reduce Our Labor Turnover," *Annals*, vol. LXXI, p. 34.

any particular plant, relies therefore upon a change to some other plant to better his status.

3. The seasonal nature of many industries. The turnover is necessarily large where the volume of output is not evenly distributed over the year. After the "peak" has been passed, many workmen must be laid off. If the peak reoccurs within a few months, a new force must be employed. Positions of short duration spelling a high turnover are the inevitable concomitants of seasonal industry.

4. Juvenile labor. Children rarely stay long in one position. The 14-16 year-old child is restless and wants to move about. A regular, settled employment rarely satisfies him.

5. The monotony of modern factory labor. This is rarely mentioned as a cause of labor turnover, but on a *a priori* grounds we must infer that it exercises tremendous influence. Specialization and routine labor have rendered industry so dull that it is no wonder the modern artisan frequently throws up his job and seeks another plant from sheer weariness.

6. Low wages. A plant that pays low wages cannot hold men long. They regard the job as a makeshift and will leave it as soon as they can find another.

Thus some of the causes of this newly discovered phenomenon are long-recognized evils while some have been but newly brought to light. The remedy most frequently proposed by students of the situation is the installation of a specialized employment department to have complete charge of the hiring, handling, and firing of men. In most factories the task of employment and the discharge of men is confided to the foremen of the various departments. Hands are both hired and fired in a hit or miss fashion. Many firms keep no employment records at all and most of those that do keep such records have only scanty material. They seldom ask the reasons for the workman's leaving; nor do they measure the turnover department by department. The centralization of employment and discharge and the concentration of responsibility would permit the use of scientific methods.

Such a department could lessen the turnover in the following ways:

1. By the use of a better method of selecting employees. Physical tests would eliminate a considerable number that are now employed only to be shortly discharged. Though mental tests have not developed as yet so far as to make it possible to assign

men to the particular jobs for which they are best adapted, at least those mentally incompetent for industry could be eliminated. The various jobs in the plant could, moreover, be analyzed in respect to the amount of skill and intelligence required of the operative. The workers could then be divided into rough groups according to their previous training and innate mental ability and then assigned to the corresponding grade of work. A centralized personnel department could follow up and verify work references and thereby classify workers on the basis of past experience. And it could maintain a waiting list, so that when new men were needed, they could be chosen largely from men about whom something was known instead of, as now, being picked up off the streets.

2. By a system of follow-up work for the new employees. This would include taking them to their place of work and indicating a friendly interest towards them. The training should be given preferably by special instructors and not confided to the foremen. In many cases it is best to give the new men preliminary training before they are actually placed in any department. Moreover, the working conditions should be closely watched by the personnel department in order to ensure proper ventilation, lighting, the prevention of dust, and the lessening of fire and accident risks. To keep a record of absences classified by individuals and by causes would also be a legitimate task for such a department.

3. By an investigation of the reasons for the successes and failures of individual workmen. The method commonly employed is to discharge a workman if he fails to make good on a particular job. This involves a great waste. A workman may fail on a specific job and yet be a valuable man for the concern. It may be that the antagonistic attitude of the foreman or the men is such that he cannot do himself justice. It may be that he is ill-adapted to that particular position but would be perfectly competent in a position in some other department. The worker embodies a considerable investment of capital by the employer and is worthy of at least another trial before he is discharged. The personnel department can find out the reasons for his lack of success and act accordingly.

Should the worker succeed in a given position, he should be commended and assured promotion. A well defined promotion policy would indeed save many a plant a great deal of dissatisfaction and lessened efficiency. The efficiency of the plant and

the loyalty of the workers may be further heightened by the institution of discussion groups at which plant problems can be explained and workmen's ideas solicited. This will also serve to bring to light hidden talent which could be utilized in executive work.

The creation of such a personnel department, charged with these functions, is but the logical extension to the human side of industry of the scientific principles that have hitherto been employed on the mechanical side. It merely strips the department foreman of his employment functions and enables him to concentrate his attention upon the actual production of goods. With this splitting of the task, greater specialization and efficiency can result. The centralized employment department has been tried in many plants, and on the whole has been very successful.²² Some illustrations of its success are: (1) the reduction by the Dennison Manufacturing Company of its turnover from 68 per cent to 37 per cent a year; (2) the reduction of the turnover by the Joseph Feiss Company of Cleveland, Ohio, to one third its former amount; (3) the lowering of the Plimpton Press turnover till it is now only 10 per cent a year. Other factors besides that of the creation of such a department contribute to the marked decrease in three of these plants. Forms of profit-sharing were introduced into the Dennison and Ford companies, while the Dennison and Feiss plants also succeeded in regularizing their output;²³ (4) the decrease in the Ford turnover from 416 per cent to less than 80 per cent.

Small concerns would probably not find it profitable to create a special personnel department. Consequently this is one of the advantages of large-scale production. Whether there is a greater

²² There are probably over 500 employment managers in the United States as a whole. The following cities have local associations of employment managers: Boston, Chicago, Cleveland, Detroit, Newark, New York, Philadelphia, Pittsburgh, Rochester, and San Francisco. The following are among the large concerns that have special employment departments: Sears Roebuck & Co.; Marshall Field & Co.; Armour & Co.; Packard Motor Car Co.; Ford Motor Co.; Equitable Life Insurance Co.; R. H. Macy & Co.; American Tel. & Tel.; Curtis Pub. Co.; John B. Stetson Co.; Westinghouse Electric Co.; Eastman Kodak Co.; Dennison Mfg. Co.; Cheney Bros. See J. H. Willetts, "Development of Employment Managers' Associations," *Monthly Review of the United States Bureau of Labor Statistics*, vol. V, no. 3 (Sept., 1915), pp. 85-87.

²³ Gregg, *op. cit.*

turnover in the larger plants which will offset this advantage is a question that cannot be answered at present.

Profit-sharing is another method of ensuring greater permanence of labor. Mr. Boris Emmet, who investigated profit-sharing schemes for the Bureau of Labor Statistics, says, "All of the informants, without exception, were also of the opinion that the establishment of the plans have a tendency to reduce the percentage turnover of their working organization."²⁴

In so far as the labor turnover is caused by the seasonal nature of industry, the creation of a specialized employment department would offer no remedy. Once the cost of labor turnover is recognized, the employers will see that the regularization of industry and the smoothing of the peaks of production will be economically beneficial to them. The efforts of the Clothcraft Shops of Cleveland and the Dennison Manufacturing Company have been turned especially in this direction.

The large turnover of children between fourteen and sixteen is merely another proof of the economic and social wastefulness of this class of labor. Industry and society would be much better off were the age of entrance into industry raised generally from fourteen to sixteen years. In so far as the labor turnover is due to the monotony of machine labor, few remedies within the plant can be devised. The men, to be sure, can be transferred from one machine to another.²⁵ But this is about all. The balking of man's innate tendency towards contrivance seems to be an inevitable consequence of the machine era. New avenues must be opened, outside of industry, for its legitimate expression.

Whatever may be the final steps taken to solve this problem, its recognition signalizes a marked advance in the development of human engineering.

PAUL H. DOUGLAS.

Reed College.

²⁴ *Profit-Sharing in the United States*, Bulletin of the United States Bureau of Labor Statistics 208.

²⁵ Mr. Dennison does this in his factory.

PROFITS OF EFFICIENCY

In this discussion a definite method is presented for separating the earned returns of efficiency from the wholly unearned surpluses of the market and of goodwill. The view is taken here that efficiency profits are due directly to the entrepreneur's struggle in the technical field to reduce outlays or to increase the quality or quantity of output. In the first place, he may, of course, reduce the costs of production or enlarge the capacity of the technical processes and finally the output of an industry. His efforts result largely in a relative increase of desirable utilities, mainly through an increase in the creative or positive forces of production. In any successful enterprise these forces augment, then, the concrete utilities and the residual surplus of the entrepreneur; and that part of the output which is thereby added is, therefore, described here as the positive profits of utility. These returns constitute the key to any careful analysis of efficiency profits. On the other hand, he may be content to add to an established process only those services which reduce technical and market risks and thus serve merely to preserve the present elements of production and the normal output of an enterprise. Obviously, such measures ward off injurious forces, are preventive rather than constructive, tend to keep an enterprise from falling below the productive margin, and consequently yield the entrepreneur different forms of negative utility profits. These various incomes of concrete utility require careful and critical examination.

Efficiency returns of the first form, then, are from their very nature positive utility profits. They arise only by the creation of added utilities through an increase in the positive forces of production. Whether values are high or low each individual engaged in producing profit is entitled to his own services, to what he alone creates, and hence to any increased utility which may be the result of his own effort. This utility may be measured—according to the nature of his sacrifice—by an increment added to the output or by one taken from the total outlay which was not previously made for protective purposes. Measured in terms of value, this profit is equal to the difference between the expenses per unit of the added output of the intra-marginal producer and the cost of production at the margin. These facts alone are sufficient to distinguish them from what are commonly known as risk and speculative gains.

The origin or present existence of utility profits, which are solely the result of increased positive forces of production, may be given due emphasis in several ways.

1. They often occur as a direct result of the constructive changes which supply much desired products with very little risk to the entrepreneur. Thus the chemist and the physicist are constantly discovering new applications of nature's forces; and after definite scientific methods have been carefully perfected, no great hazard is taken in adopting such new productive processes. It is plain that the corresponding utility profits include that part of the added product which is due to increased advantages not counterbalanced by frequent risk losses.

2. Again, the law recognizes the existence of positive utility profits by the manner in which it guards the legitimate trade secrets of the entrepreneur. By way of illustration, an implied contract is presumed to exist between men who jointly venture, or assume confidential relations in a business, that they will not reveal trade secrets imparted to them. This legal principle has preserved for many a shrewd enterpriser the hard-earned rewards of his own efforts.

3. It has also been emphasized by American judges that the inventor, whether he be workman, manager, or partner in an enterprise, may exercise this part of the entrepreneur's function with full assurance that he will be protected in realizing the profits of his invention and discovery. In fact, unless there is a particular contract to the contrary, an employer can secure nothing more than a shop right to any invention that his workmen may have made.

4. The profits of efficiency are also protected by trade-marks which are usually affixed to secret preparations. If an article is manufactured under a valid trade-mark neither the process nor the mark may be used by competitors.

5. In no less degree, the law has recognized efficiency profits in the patent systems of England and the United States; for without the inventive power there would have been no patent law. It is in recognition of this peculiar ability that the state undertakes to guarantee to every man for a limited period the exclusive manufacture and sale of his own product. Obviously, the great number of patents issued annually furnish abundant evidence of the efforts put forth by thousands of inventive minds to secure greater utility profits, which are determined by a better or greater total output.

Positive utility profits of this kind accumulate with great rapidity in commerce, transportation, and manufacturing industries, but especially so when enterprises are in the state of increasing returns at an increasing rate. Thus in the competition between parallel railroads for freight traffic, utility profits are augmented with increased patronage, and rates may be established for the more successful lines upon a cost basis. The public gains, of course, through the competitive struggle under the laws of efficiency; for rates constantly tend to decline. Nevertheless, in no other case are profits of this description so plainly the result of ceaseless energy and constant sacrifices, multiplied in the race for wealth and power—the real income of enterprise.

In agriculture, however, positive utility profits are so closely associated either with the speculative surplus or with rent that writers often fail to distinguish them. In opposition to the scarcity and the niggardliness of land is to be reckoned the increased efficiency of improvements which reward the entrepreneur in the profits of utility. An improvement in agriculture may be subject either to the law of an increasing rate or of a diminishing rate; which, at first, must result in an efficiency profit to the tenant. However, in some instances such differential gains may be transferred to the landlord because of peculiar circumstances. Two examples here will suffice. A tenant was able, by a unique device and the use of dynamite, to drain a swamp and thereby increase its value tenfold. Another by sinking tubular wells in Colorado made possible the irrigation of wild land. In each of these instances the advantages of increased production went ultimately to the landlord, although some part of the increased output was undoubtedly justly due the tenants as positive utility profits. New natural forces were in each instance brought into operation, and from these the landlord was, of course, entitled to rent; but for their utilization and the sacrifices of invention the tenant should have received a fair return.

Efficiency returns of the second general group, which we are here describing as negative utility gains, appear whenever the entrepreneur is seriously engaged in the task of preserving his product—that is, both the industry and the output. Such efficiency profits are, therefore, due mainly to his successful struggle against chance or uncertainty and to his elimination of some important negative element. It is probably plain that a New York merchant who is able by introducing an automatic system of fire

protection to effect a reduction of fifteen thousand dollars a year in his insurance cost is adding that much to profits. If a vessel loaded with perishable freight becomes stranded, the element of risk outweighs all other considerations; every effort is made to rescue both cargo and vessel. Partial destruction often occurs and the immediate object is to reduce risk losses. Furthermore, desperate efforts have recently been made to protect crops from the ravages of insects, and stock from sudden epidemic. In like manner any defensive measure in production is an effort to prevent a risk loss; for to relinquish a technical advantage, after it has once been secured, means increasing risk and necessary loss.

In this second class of efficiency returns are to be described, first, the important internal risk profits of an enterprise. Such gains in utility come by reducing the losses from certain internal economies of production. All protective measures used for the preservation of the physical properties of the output or the process itself are to be counted as internal economies, and this particular group of negative utility profits arises from efforts which preserve the concrete product and prevent its destruction or deterioration. Thus thick walls preserve the ice contained in the refrigerator car; and the ice in turn preserves the fruit or meat placed therein. Again, the outlays required in such measures as spraying fruit trees or grain stored in elevators to kill insect pests are to be counted as sacrifices of production. In fact, these constitute a form of risk costs. The immense expenditure in the United States for protective measures may be seen in the extensive building of dikes, ditches, and canals. At many points it is necessary to construct wharves and warehouses for storing commodities. And in no less degree are the mine and farm owners called upon to protect the products of the earth. All outlays of this nature eliminate a negative element or force; and are obviously to be separated by careful analysis from those costs which increase the positive forces of production. In fine, the first are definite outlays against risks, and as such serve to reduce the losses of a business.

A strong contrast exists here between positive utility, and internal risk, profits. Positive utility profits have their origin in the production of added salable commodities at the prevailing price, while this particular risk profit is the result of preserving or redeeming such utilities from threatened loss or disuse. Dredges used in building canals for carrying commerce create new wealth;

but the same means used to draw off water from a partly submerged city is only a protective measure. Again, a hydrant may serve to augment positive utility profits by bringing new areas under cultivation; or as a method of protection it may be needed to save a fire-stricken section. Positive utility profits accrue when a second or third shift of laborers is added to an enterprise; but the number of accidents to each man will be even greater than before, and consequently the cost of insurance or of safety devices will increase. Now it is to be noted that positive utility gains and internal risk profits may be the result of two different processes, as in the illustrations given above. The first gains usually originate in the main process of production, but their preservation is often due to some secondary means. Consequently, the risk profits of utility in the secondary process are frequently equivalent to previous risk costs or losses in the first group of returns. However, when utility-forming and risk-eliminating processes are closely associated, the task of separating positive utility gains from risk utility profits is much more difficult; for example, the treating of wheat before planting or inoculation of alfalfa seed to avoid subsequent loss. If a veterinarian arrives just in time to save a sick horse, he creates a much desired utility for which he is given a corresponding compensation; and the owner of the horse has, perhaps, saved its entire cost and efficiency to himself. That is, internal risk profits of an enterprise are simply utilities, measured in terms of marginal cost, which have been saved from loss, deterioration, or destruction. A positive utility profit is the direct result of an added productive force; a risk profit is a utility profit rescued from destruction. If a utility saved by a certain act or process cannot, however, be separated from accompanying losses, its creation undoubtedly prevents a still greater loss; and, while not adding a surplus utility, it does, nevertheless, establish a negative gain or profit. This last rule is well established in law, for it is used in courts of equity to measure differential profits.

Now the entrepreneur is usually drawn into a new field by the prospect of both positive and risk utility profits; and, as such returns are limited finally by his operations under the technical laws of efficiency, they become, as will be seen, costs of production and price determining. That is to say, his chief purpose is not to assume risks but to avoid the burden of taking them. Opportunity to increase commodities at little risk, as in the lumbering

industry, attracts large investments. But as a rule such utility profits must be sufficient to induce entrepreneurs to enter new fields or to make alterations in their processes of production. On this ground, they are costs measured by the entrepreneur's estimate of his own services. Stated concisely, to secure the added output, the undertaker is usually obliged to assume greater proportionate outlays because of these technical laws and to accept a less rate of profit. Though he receives a greater total profit, his costs rapidly approach the competitive plane. Consequently, the general attitude of entrepreneurs toward enlarging their output usually regulates these profits of utility. Still, because of hidden risks this gain is less at times than the undertaker may have expected.

In case costs per unit of product rise with such increased risks, an enterprise can only adjust its expenses to the prevailing price by reducing its output. And the flexibility of an enterprise allows this process to go on until the extensive margin is reached. In other words, as the point of highest rate of profit in a flexible enterprise is also that of lowest cost per unit of output, increasing risk costs or losses may gradually compel the producer to diminish his total product until this point finally coincides with costs at the extensive margin. Certain it is, that this marginal enterprise assists at this point in the determination of price. For whether price is stationary or constantly changing, the total output cannot be secured at a lower expense; and as such risk costs are a definite barrier to a further increase in production they are, therefore, price determining. On the other hand, with the invention of a device that reduces losses, internal risk gains or profits are accumulated; and an enterprise may then increase its output with a greater total profit at some point above that of minimum efficiency. That is, the enterprise is now above the extensive margin and, as an intra-marginal unit, its accumulation of profits is checked only by the competition of others. Hence, in such instances both positive and negative utility profits are finally determined at the point of greatest net output. Above all, the operation of the technical laws of efficiency, in the usual adjustment of productive processes, establishes a general *cost line* which, under freely competitive conditions, separates utility profits from unearned gains, and makes the former price determining.

The second class of negative utility gains are external risk profits. These are obtained by overcoming losses in the external economies of production. Measures taken to prevent (a) the

fluctuation of money costs in outlays or to secure (b) a permanent market for finished goods generally decrease risk losses. It will thus be seen that external risk profits are of two distinct kinds, and that they depend directly upon overcoming the speculative elements in purchasing the factors of production and in selling the finished product. In the first place, such losses are reduced by long-period contracts which fix wages; by the importation of laborers; by the purchase or lease of mineral, timbered, and ranch lands to secure raw products; and by establishing or purchasing enterprises supplying needed materials. A case in point is that of a steel corporation which has purchased mineral lands in Minnesota; it is now securing its iron ore at seventy-five cents a ton. This company no longer fears the risks from the fluctuations in the price of iron ore. A small part of such expenditures, as this particular investment in mineral land indicates, should be counted as insurance against loss. It is patent that where industries are thus united by contract or purchase, the injury to society by combination and integration of related enterprises appears only when they are able, after having secured the economies of efficiency, to force values permanently above the cost of production, as determined by the laws of efficiency. Efficiency profits from overcoming external risks are then obscured by the appearance of unearned artificial gains. From the legal standpoint, however, such contracts are valid until there is tangible evidence that they have become the basis of a monopoly.¹

On the other hand, external risk profits are also due to a judicious expenditure in perpetuating the demand for a commodity or in establishing a fixed market by increasing the goodwill of a business. The cost of advertising, which amounts at times to considerable sums, should be included here. But far more important to such risk profits are the contracts by which all of a customer's patronage is secured. Or again, of like nature is the agreement of a wholesale merchant that he will sell a certain commodity to but one dealer in a designated city or state.² It was not illegal

¹ In this connection, we may note that such contracts were used to control the supply of lumber in certain counties in California, and of grain bags in another part of the same state. Similar contracts regulating the amount of coal shipped to Elmira, New York, were declared void as being against public policy. In this respect, a combination based upon agreement generally affects risk profits over a wider area than does one based upon purchase of much needed industries.

² *Clark v. Crosby*, 37 Vt. 188; *Newell v. Myendorff*, 9 Montana 254; *Keith Optical Co.*, 48 Ark. 139; *Roller v. Ott*, 14 Kan. 615, 616.

for a railroad company in Missouri to bind itself, in return for wharf privileges, to send all of its freight and passenger traffic over a certain ferry line;³ or in Indiana for a saloon-keeper to agree to purchase his stock of beer from a prescribed brewery.⁴ No less important are the agreements between retail dealers to compel wholesale merchants to remain entirely out of retail business; for the courts in these cases were of the opinion that it is often legal to make contracts for the express purpose of decreasing the profits of others.⁵ Obviously, such contracts secure a definite and reliable market for the output of an enterprise at a small risk expense. Moreover, this outlay reduces the losses arising from delayed or irregular sales, and whatever sum is saved under freely competitive conditions may be credited⁶ as an efficiency profit to this form of contract. Despite this advantage, however, it is certain that trade channels often become fixed by such arrangements, competition is restrained, and not seldom these agreements enhance prices and form monopolies.⁷ Yet in many cases uniform prices extending over wide areas, which have been established by agreement or custom, illustrate only the inevitable effort of men to overcome external risk losses.

Certain it is that the public is unable to discriminate between the earned and unearned returns of large enterprises; and economic writers whose peculiar duty it is to investigate this phase of modern industry have neglected the various forms of legal profits. It is just at this point that juristic opinions furnish important material for discerning economists. In fact, that branch of the law which relates especially to patented inventions makes easier the task of distinguishing the foregoing efficiency profits; for in this field such returns are often reckoned upon the producing capacity of the concrete process. If one producer uses unlawfully a patented article or process owned by another, he becomes an infringer upon the latter's rights and may be held legally responsible for the gain made by the infringement. In estimating

³ *The Wiggins Ferry Co. v. Chicago and Alton R. R.*, 73 Mo. 390, 405.

⁴ *Ferris v. Brewing Co.*, 155 Ind. 539.

⁵ *Bonn Mfg. Co. v. Hollis*, 54 Minn. 233; *Ertz v. Produce Exchange*, 79 Minn. 144; *Macaulay Bros. v. Tierney*, 19 R. I. 259. See, however, *Jackson v. Stanfield*, 137 Ind. 615; *Brown v. Jacob's Pharmacy Co.*, 115 Ga. 442.

⁶ When such contracts are broken, the plaintiff is usually allowed to collect his prospective profits in the form of damages.

⁷ *Boutwell v. Mars*, 71 Vt. 1; *Olive v. Van Patten*, 7 Tex. Civ. App. 630; *Judd v. Harrington*, 139 N. Y. 105.

these profits a definite rule is followed. The advantage which this first entrepreneur derives from using the patented device over that accruing from any other process known prior to that invention, in accomplishing exactly the same result, constitutes the profits which the complainant is entitled to recover.⁸ Thus in the case of the Cawood patent⁹ a certain railroad had used, without the inventor's permission, a patented swage-block for the purpose of repairing the ends of steel rails which had become exfoliated by wear. It was held by the court that the gain in mending rails by the use of the patented implement compared with the cost of mending them on a common anvil, including the saving in fuel and labor, was the proper measure of damages. Needless to say, other examples might be selected to emphasize this method of determining efficiency profits by the use of a legal standard of comparison, which in each case is the next most efficient process giving the desired result.¹⁰

If only the patented process under consideration and one other would serve the particular purpose of production in any case, we should have the stock illustration of the economist. That is, the latter process would determine the extensive margin of production from which the efficiency profits of the former would be measured. And inventions are not so varied or so numerous that examples of this are infrequent. As we have observed, the defendant under the Cawood patent was obliged to pay the difference between the expense of repairing his rails by the patented process and that which he would have incurred had he used a common anvil. Either the outlay of swaging them on an anvil or of rerolling them should be taken as the marginal expense of production.¹¹ In *Thomson v. Wooster* the master in chancery allowed the complainant all the profits which the defendant had made by the use of a patented machine in folding strips of cloth over what his expense would have been in having the same tasks done by hand.¹² In still another instance, the decreased expense of splitting wood by a patented device, in comparison with doing

⁸ *Cawood Patent*, 94 U. S. 710; *Mess v. Conover*, 125 U. S. 144, note; *Tilghman v. Proctor*, 125 U. S. 144; *Mowry v. Whitney*, 14 Wallace 649; *Sessions v. Romadka*, 145 U. S. 49.

⁹ 94 U. S. 695, 710.

¹⁰ See *Mowry v. Whitney*, 14 Wallace, 649; *Williams v. Rome and Ogdensburg Railroad Company*, 18 Blatch. 185.

¹¹ 94 U. S. 710.

¹² 114 U. S. 116.

it by hand, has resulted in a differential gain for the owner of the invention.¹³ A similar case is that of *Sessions v. Romadka*. The advantage secured by the defendant consisted in the difference between the cost of making certain patented fasteners, which he had used in manufacturing trunks, and the greater outlay for straps, buckles, and dowels, previously used for the same purpose. In cases of this character, the differential advantages or profits have in some instances been measured in positive gains, but in others there has been only a reduction of prospective losses. Yet the differential advantage forms in each case the court's measure of the inventor's legal profits.

Indeed, emphasis may be placed upon the different forms of efficiency profits and their practical significance by referring to the decisions of certain cases which illustrate this rule. For example, positive utility profits are obtained in all those instances in which the differential advantage of the patented process over the less efficient ones is so marked that a greater surplus output results from its use.¹⁴ It is often true that the utility profits so obtained are produced from materials which otherwise would be useless or of little value in other processes.¹⁵ The methods of the inventor have then brought into use new technical forces, and his rewards consist almost entirely of prospective utility profits. In the end, however, the final output depends upon the superiority of the truly positive, over the noncreative, forces of production. But if this product is the result of several independent acts, the utility profits of one process are often counterbalanced by losses from other methods in the same enterprise. There has, however, been a negative gain over the opposing elements of nature.

It seems necessary to illustrate this last statement with several examples. In an important suit, the defendant had for several months used independently several solvents, including a patented process, in the treatment of pyroxyline. Because of a defect in the pyroxyline the various treatments were unsuccessful and the resulting products could not be sold at a profit. Nevertheless, the master in chancery decided that as the patented solvent was much cheaper than the others used, the defendant saved a sum

¹³ *Mess v. Conover*, 125 U. S. 144 note.

¹⁴ *Piper v. Brown*, 1 Holmes, 198; *Rubber Co. v. Goodyear*, 9 Wallace, 801; *Elizabeth v. Pavement Co.*, 97 U. S. 138; *Tatham v. Lowber*, 4 Blatch., 67; *New York Grape Sugar Co. v. American Grape Sugar Co.*, Fed. Rep. 456.

¹⁵ *Rubber Co. v. Goodyear*, 9 Wallace 801; *Elizabeth v. Pavement Co.*, 97 U. S. 141.

which the complainant was entitled to recover as profits. "From these findings," declared the court, "it is apparent that, to the extent the defendant used the patented solvent, the use of the other was superseded in its experiments and operations in treating pyroxyline. The case is therefore one where, by the use of the patented invention, the defendant has been saved a greater loss than it otherwise would have sustained. To this extent it has derived an advantage by the use of the patent."¹⁶ Again, in the case of *Meyers v. Conover* there was a saving of labor in splitting kindling-wood by means of a patented machine in comparison with the work of doing the same task by hand. No actual profit was made by the infringer of the patent, it was claimed, but the court decided that "his loss was less to the extent of seventy-five cents on each cord split, than it would have been had he not used the patented invention." It seems that a similar decision was first reached in *Black v. Thorne*,¹⁷ which was later reversed on the ground that there was no positive proof that the defendants in the case had made any profits whatever from the use of the plaintiff's patented improvements.

In not a few decisions we find that reference is made both to (a) the saving from decreased costs and to (b) the addition of positive utilities. These facts illustrate two important forms of positive utility profits. Thus in *Tilghman v. Proctor* it was found that in the manufacture of glycerine, a certain patented process was superior to any other known method. It had saved the defendant in the use of lime and sulphuric acid the sum of \$182,731, while there had also been a gain in the production of glycerine amounting to \$62,000. And again, in determining the profits from an unauthorized use of a patented invention for the purpose of manufacturing oxide of zinc from zinc ores, the master in chancery made a careful computation of the (a) coal and labor saved by the new process, (b) the increased amount of oxide of zinc obtained by it from a given weight of ore, and (c) the quantity of residuum available for renewed treatment which was also saved to the manufacturer after his adoption of the new process. These facts certainly furnished the court with accurate information concerning the direct saving in expenses of production and the amount added to the total output of utility profits over other processes. Yet, strange to say, the court rejected these rather

¹⁶ *Celluloid Mfg. Co. v. Cellonite Mfg. Co.*, Fed. Rep. 478.

¹⁷ 111 U. S. 123.

refined calculations which undoubtedly proved the great superiority of the patented process. The decisive objections to the master's report, as given by the court, were that the result, thus obtained, necessarily fluctuated with the varying richness of the ore treated, and that the defendants were charged with the third item to which no value was given by the patented process. "The simplest and most appropriate method is," stated the court, "to ascertain the quantity of oxide obtained by the use of the complainants' process, and the cost of its production, and comparing this with the cost of producing a like quantity by the muffle process, the difference is the saving due to the former."¹⁸ Of the two methods presented here, it is obvious to one familiar with the treatment of ores that the former one was much the more accurate and scientific. In selecting the figures showing the comparative costs of producing one hundred pounds of oxide under both the old and the new processes no account seems to have been taken by the court of the quantity of ore wasted under the old process. In the master's estimate we have, on the other hand, a distinct statement of the savings of ore formerly wasted, and also the added profits from an increased proportion of oxide from the ore used. In fact, the method presented by the master resembles very closely that used to determine the profits of the defendant in *Tilghman v. Proctor*.

However, if the patented process has effected at most only the preservation of an added product, or a saving from what would otherwise have been a loss, the advantage in the form of output may really be measured or estimated as internal risk profits. This follows from the fact that a risk profit is a utility profit which has been saved from destruction or loss. Thus, for example, in *Piper v. Brown*¹⁹ certain fish, which under other circumstances would have spoiled, were so well preserved by a patented process that they were disposed of at a normal profit.²⁰ In the case of the Cawood patent otherwise useless rails were again made serviceable, and the invention clearly saved a risk profit. It was, indeed, argued that no profits were made by the use of the patented process and that it would have been more economical if the rails had been rerolled before again being laid. Upon this point, however, the court was not to be turned from the rule relating to

¹⁸ *Wetherill v. Zinc Co.*, 1 Bann. and Arden, 487, 488.

¹⁹ 1 Holmes 198.

²⁰ See *Piper v. Moon*, 91 U. S. 44.

the existence of a differential advantage.²¹ In fact, in the various circumstances in which a process simply saves what would otherwise have been a loss, this saving has often come, not from added utility, but from lessened costs of preventive measures; and the decreased loss may be taken as adding to the entrepreneur's risk profit. In reviewing many cases, one is struck by the large number of instances in which risk returns were found to be present, though no profits were obtained from the general business. This fact emphasizes again the important place held generally by internal risk profits in manufacturing industries.

Whether the differential advantage of an invention rests mainly upon an increase in positive utility, or in risk profits, the rule of division between the infringer, who merely uses unlawfully the protected process, and the patentee is obviously plain. The latter possesses here no legal right to the surplus speculative profits of his patented device or to the returns from any other elements of the business. At times the expense of production under a patented process and other outlays cannot be differentiated, and the plaintiff is then allowed all profits accruing from the entire process. But the rule is nevertheless inflexible; the latter is entitled only to the earned increment which is equivalent to his economic advantages measured in costs over the standard of comparison. It is the custom for the latter to select what he considers the proper standard, and to present proof of the resulting advantages which the defendant derived from infringing upon his invention. The defendant, on the other hand, may accept the standard so selected, or he may set up one more favorable to himself. But in any case, the final award by the court rests upon appropriate and pertinent evidence pertaining to the utility and superiority of this invention over old modes or devices that have been used for working out

²¹ "The argument is plausible," runs the opinion, "but it is unsound. Assuming that experience has demonstrated what is claimed, the defendants undertook to repair their injured rails. They had the choice of repairing them on the common anvil or on the complainant's machine. By selecting the latter, they saved a large part of what they must have expended in the use of the former. To that extent they had a positive advantage, growing out of their invasion of the complainant's patent. If their general business was unprofitable, it was the less so in consequence of their use of the plaintiff's property. They gained, therefore, to the extent that they saved themselves from loss. In settling an account between a patentee and an infringer of the patent, the question is, not what profits the latter has made in his business, or from his manner of conducting it, but what advantage has he derived from his use of the patented invention" (94 U. S. 710).

similar results. In the words of a learned judge the economic principle is stated most concisely: "The fruits of that advantage are his profits."²²

These simple rules for determining the profits of invention have made it clear that in at least one class of cases, the profits of efficiency have been frequently separated from the unearned surpluses of goodwill and monopoly. Now it is obvious that if proper provisions were made in the patent law, the rule so applied here might be extended to other instances. Without considering the ethical phase of the question, if public policy demanded such a differentiation for the purpose of giving to the state the unearned speculative profits of patent monopolies, the same distinction could be made between such returns in a large number of cases, or in any legally protected industry. Courts of law are determining every day the profits of businesses according to the well established rules of a political economy which are peculiar to their procedure; and the gains from differential advantages, goodwill, and monopoly are not new concepts to them, nor even ideas clothed in new terminology. That is to say, upon purely scientific grounds, the surpluses of monopoly and coercive restraint of trade may be made to stand apart from the proper rewards of dynamic efficiency.

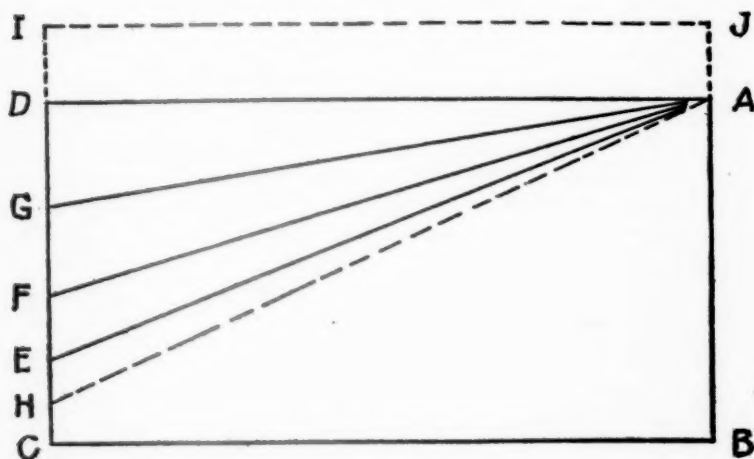
Let us turn now to a third class of negative utility gains which are defined here as subjective risk profits. In practice this increment is being gradually recognized by both jurists and economists. But so far, this study of efficiency profits has been naturally obscured by the existence of a peculiar risk cost; for a mental sacrifice appears concomitant with the rise and decline of every productive process. Every new method is an experiment, and is usually accompanied by some anxiety. In fact, the original risk is so great that the fate of an entire enterprise often hangs in the balance. We have noted in previous cases that despite the use of patented processes several enterprises operated at a loss. After long tests, many patents are found to be commercially worthless, bringing naught but anxiety and loss to the inventor. If in the course of time, however, a process is firmly established, this mental strain gradually disappears, though some risk losses still continue. Again, as a single enterprise declines in

²² See *Suffolk Co. v. Hayden*, 3 Wall 320; *Brickill v. Mayor of New York*, 112 Fed. Rep. 71; *Mowry v. Higgins*, 43 Fed. Rep. 675.

efficiency or is distanced by more successful competitors, this risk burden reappears and the entrepreneur's worry increases in proportion to the risks taken and the amount at stake. Obviously his compensation for carrying risk losses and this *mental burden* must increase as his business grows less efficient. The common practice of balancing the gains of one class of commodities against the losses of another conceals the source of important risks, but where risks and losses are fully recognized the mental stress of fear and anxiety tends to limit supply until prices rise ultimately to the necessary cost level. Now it is to be noted that as the more efficient entrepreneur reduces these risk losses and the accompanying worry and anxiety, he secures two additional risk profits. There is, first of all, a gain from the increment necessary to compensate producers generally for undergoing the mental stress concomitant with risk. Indeed, the risks and anxiety common to all of the enterprises of a single kind limit to some extent the number of producers to be found therein. Consequently, by reducing in a single enterprise such industrial hazards and the accompanying mental strain, the usual or common compensation for the latter becomes in this case a profit of efficiency. This is the first form of subjective risk profit. Finally, his second gain from this source is somewhat different. Doubtless one would admit that the decrease in worry and care would permit the entrepreneur to give more attention to the dynamic function or the improvement of a definite industry. There is, then, a second gain from the increase in time, energy, and improvements made possible by the elimination of mental stress in particular enterprises. In other words, by way of contrast, risk losses and mental strain decrease for the more efficient entrepreneur; while risk costs as well as losses and the mental burden increase in the declining enterprises, and form a substantial basis for the marginal entrepreneur's economic sacrifice and, therefore, of minimum profits.

The general plan of profits presented here may be illustrated by the accompanying figure. Passing from right to left, the rectangle *ABCD* may be taken to indicate the varying expenses and efficiency profits of production in a group of competing industries from the marginal producer at *A* to the most efficient entrepreneur at *EC*. Beginning at *A*, the increasing sums going to wages of management of the more productive entrepreneurs may be represented comparatively by the triangle *AEF*. Stated con-

cisely, such wages are measured approximately by what the entrepreneur could get by entering the employment of some other person in the same industry. Wages of management do not, therefore, in a narrow sense include risk profits. Subjective risk profits, however, enter largely into minimum return profits. And as any minimum profit which the entrepreneur will accept and still remain in the industry will, therefore, be something more than mere wages of management, it may be represented by the two increments in the larger triangle *AEG*. If the entrepreneur did not manage his own business, his net profit would not, of course, include such wages. As each entrepreneur receives a differential minimum profit, according to the amount necessary to retain him permanently in the industry, such returns have been arranged here in an ascending scale from *A* to *G*. But the profit necessary to induce an entrepreneur to enter or to improve an enterprise must be something more than that necessary to retain him after he has become firmly established in it. True, men are usually attracted to a new field largely by prospective profits; but under freely competitive conditions, differential returns will



finally be determined by the plane of competition represented here by *AD*. Consequently, in a static industry, these become gains of efficiency measured approximately by *AFD*. And, as such utility profits are absolutely necessary to induce entrepreneurs to assume added investments, they become costs of production. So im-

portant are these in establishing theoretically the competitive plane and the demarcation of earned and unearned increments that this diagram may be taken as representing a detailed analysis of them as they occur in a static state.

The competitive plane thus becomes the natural line of division between the cost of production and the scarcity surplus; and there is added proof here that efficiency profits become costs of production. For example, every successful entrepreneur tends to expand outlays and output until his intensive margin of production coincides theoretically with this line; the latter becomes, therefore, a uniform plane of marginal costs. Clearly enough, it represents the normal level of competition between enterprises, the natural price of the English classical economists, and the cost price of the English common law. By tracing it again in theory, law, and industry, as the natural division between the profits of efficiency and the scarcity surplus, the first step is taken in differentiating the unearned increments of contractual restraint upon trade, monopolized advantages, and exploitative enterprises. Such increments are represented by the rectangle *ADIJ*. They are usually scarcity surpluses which accumulate by equal accretions upon individual units of product to pass finally to the landlord as contractual rents. The latter are indicated in this figure by the triangle *AEH*, as rent expenses of production. There is room in economic theory for both the scarcity and the productivity concepts of rent, but in this article we are interested mainly in the relation of scarcity rents to the plane of competition.

That the earned increments of the entrepreneur may finally be distinguished from his other incomes, the previous analysis of profits has made prominent the exact nature of efficiency returns. Such profits of efficiency are largely the reward of energies confined to the dynamic field and are equal to the net output measured in terms of marginal cost. During a long period of falling prices, they are determined by the difference between his own expenses per unit of product and those of the marginal entrepreneur in the same vicinity. Obviously, the undertaker's unearned gains are what he receives in the residual surplus above wages and the profits of efficiency.

It is therefore plain that between the English classical theory and the modern surplus concept of profits, between the internal and external economies of production, and between the efficiency and speculative profits of enterprise, may be drawn a line which

will differentiate the earned from the unearned incomes of the entrepreneur. This demarcation is of great importance in attacking intelligently modern economic questions; for it is plain that on one side are to be included positive utility, and the three forms of negative utility, profits; while beyond this line lie the speculative, monopoly, and exploitative increments, which have made these problems of such great interest to the entrepreneur.

Now the relation of the state to these various increments makes the demarcation still more important. Through the expenditure of vast sums, the state endeavors to aid the entrepreneur in production that he may secure greater utility profits. In the use of somewhat smaller sums, it seeks to protect and preserve the output, eliminate internal risk losses, and thereby increase risk profits. By means of various bulletins and reports, it attempts to conserve the external risk gains by aiding the producer to correlate his supply to demand. But beyond this line of demarcation the state ceases to lend the entrepreneur its assistance; its position, in fact, is suddenly reversed, for the well known speculative, monopoly, and rent increments are not to be encouraged by legislation. It would appear that its duty to the consumer lies rather in furthering as far as possible their elimination. Contrasted in other words, the state suppresses monopoly gains by legalizing the efficiency profits of certain coöperative combinations that preserve competition. It seeks to reduce the rent increments of the highly populated districts by encouraging greater production and higher utility profits in other sections. It passes laws to do away with the surpluses of speculation; and endeavors to prevent restraint of trade that the innocent investor and the original producer may not suffer discouraging risk losses but receive proper efficiency rewards for their efforts. Finally, on this competitive line of demarcation between the earned and the unearned increments is to be fought out, with more or less persistence, one of the greatest struggles of the industrial world.

C. J. FOREMAN.

University of Arkansas.

IS "UTILITY" THE MOST SUITABLE TERM FOR THE CONCEPT IT IS USED TO DENOTE?

In all sciences, and particularly in one like economics, which appeals to the general public and which uses concepts and terms already at least partially familiar, it is a matter of some practical importance to select a suitable terminology.

The concept called "final degree of utility" by Jevons, "effective utility," "specific utility," and "marginal efficiency" by J. B. Clark, "marginal utility" and "marginal desirability" by Marshall, Gide and others, "Grenznutzen" by the Austrians, "Werth der letzten Atome" by Gossen, "rareté" by Walras, and "ophélimité" by Pareto, seems still in need of really satisfactory terms by which to express it.

Marshall improved greatly upon Jevons' phrase when he substituted the term "marginal" for "final degree of," and this improvement has been very generally recognized and accepted.

But, as yet, no generally accepted substitute for "utility" has been found. The term is a heritage of Bentham and his utilitarian philosophy. It is misleading to every beginner in economics and to the great untutored and naïve public who find it hard to call an overcoat no more truly useful than a necklace, or a grindstone than a roulette wheel. Economists cannot with impunity override the popular distinction between useful and ornamental, much less that between useful and useless, without confusing and repelling the man in the street.

In the last few years a new source of confusion has arisen from the use, in a special sense, of the phrase "public utilities." This phrase must itself be used by economists who now find themselves discussing the marginal utility of a public utility!—and distinguishing between the marginal utility "in the economic sense" representing the esteem of the political ring or other powers that be for that public utility (which marginal utility imparts economic value to said public utility), and utility "in the popular sense" representing the real social serviceableness of that public utility!

Genuine utility for social service must, as Pareto says, be more and more studied by economists as they fulfil their task of working out plans for economic and social betterments. He therefore suggested that we should not abandon the term utility but reserve it to express the genuine article and employ in its place in price

analysis the term "ophelimity"—as it has been anglicised—to express the value-making quality.

It is true that coined words have the great advantage of breaking away from the misleading associations which cling to terms already in popular use. But the difficulty has been with "ophelimity" as with most coined words, that, just because it has no associations to introduce it, it would not and could not dispossess the old term.

The term "desirability" comes very near the required mark and I have used it in most of my books; but, unfortunately, like utility it carries with it to some extent an ethical connotation. Usage seems to imply that a desirable object is one which *ought* to be desired, rather than one which simply has the potentiality of being desired. We are forced to call the most undesirable articles and services, such as whiskey and prostitution, economically "desirable" in price analysis.

It has occurred to me that the term really needed may be built on the good old economic term "want." Long before the days of "marginal utility" economists spoke of "human wants." Wants include wants for purposes of ornamentation as well as for purposes of real utility; wants for what is trivial or useless as well as for what is important, useful, and desirable; wants for evil as well as for good purposes. So far as the influence on price is concerned the essential fact is that an object is actually wanted, or rather that it is capable of being actually wanted under stated circumstances. Whether it ought to be wanted, or whether it is wanted for a proper purpose is immaterial. It must merely have the capacity for being wanted, it must be wantable, it must have wantability. Ordinarily the short term "want" will suffice. We can speak of a marginal want for whiskey, and if we prefer a phrase in which "of" replaces the "for," we can speak of the marginal "wantability" of whiskey. The two terms "want" and "wantability" might well be used alternatively, affording welcome variety in expression.

The more technical term of the two, "wantability," is only half coined. It is sufficiently coined to serve notice on the reader that he must learn, not assume, its meaning; while the association of ideas it carries, leads the mind along the right path without paradox, contradiction, or confusion. It is readily recognized when seen and easily recalled when wanted. In short, it bears its meaning on its face. As hinted above, it could be piloted into use by

speaking of "the marginal want for" as an alternative to "the marginal wantability of."

Another advantage is that these terms afford the means for coining an expression, to me at least much needed, for a unit of "wantability." Such a unit might be called a "wantab." In this case we have a free field for a coined word and no term in use to dispute possession. If, as I anticipate, the science of measuring human wants is to be developed in the future a convenient term for this unit will be needed.

No equally suitable term for a unit of "desirability" or "utility" or "ophelimity" seems available; although in my doctor's thesis of 1891 on "mathematical investigations in the theory of value and prices" I made an attempt. The appearance last year of a French translation of this little essay has renewed my interest in a better terminology and, together with the opportunity to secure the necessary data which the war seems to promise, has led me to hope for the statistical measurement of marginal "wantability."

Before attempting to launch any new terms for this concept, I should be glad to receive expressions of approval or disapproval from other economists.

IRVING FISHER.

Yale University.

COMMUNICATIONS

"MANDEVILLE IN THE TWENTIETH CENTURY": A CORRECTION

Professor Patten's entry into an economic controversy may always be counted upon to contribute to the gaiety of nations. In the diverting essay on "Mandeville in the Twentieth Century" in the March issue of this REVIEW,¹ he has side-swiped—and in a footnote!—a recent performance of mine as "an example of unsound reasoning." Intent upon larger game, he has not stopped to set forth the particulars of my unsoundness in a manner that might permit rejoinder, and I can only take refuge in the saucy retort of the same eighteenth century physician-economist whose influence he so generously estimates: "Where any disputes are on foot the most doubtful cause gets champions and abettors among those who are not concerned in nor well acquainted with the quarrel."

That which Professor Patten, however, does—and with unmistakable definiteness—is to charge me with a particularly offensive form of intellectual dishonesty:

One of the ways of discrediting an opponent is to assert the newness of his doctrine and thus to put on him the burden of seeming to overthrow established positions. Dr. Hollander, for example, finds that "the resistance to funding in war finance" was first explicitly stated by Mr. Pigou in 1916 and regards it "both as a melancholy example of scientific lapse and as a mischief-making error."

As a matter of fact, my actual statement in the paper to which Professor Patten refers is as follows:

A glaring instance of this misuse is the outright resistance to funding in war finance on the score that it makes inevitably for inflation and thus for high prices—or more briefly the inflation argument against war loans. Both as a melancholy example of scientific lapse, and as a mischief-making error in the actual conduct of war finance, it has seemed worth while to examine this claim.

It is possible to trace with some exactness the growth of the doctrine. Without returning to shadowy beginnings, the first explicit phrasing of the argument appears to have been made in 1915-1916 by an English economist of note, Mr. A. C. Pigou. . . .

It thus appears that Professor Patten has attempted to make his point by calmly cutting my statement in half and quoting only the first

¹ AMERICAN ECONOMIC REVIEW, vol. VIII (March, 1918), p. 88.

half. The consequence is that I am made to impute to Pigou the authorship of resistance to funding in war finance, whereas what I really do so impute is the authorship of the inflation argument in connection with such opposition. There were prophets, of course, before Saul. But it is not of prophets that I am speaking.

Professor Patten is perhaps aware of some earlier statement of the inflation argument than that contained in Pigou's writings, in which event it is desirable in the interest of doctrinal history that he set the facts forth, and none will rejoice more than I. But interesting as this might be, it is not the matter in issue between Professor Patten and myself, and should not be permitted to become so. Professor Patten charges me with attempting to discredit an opponent by asserting incorrectly that resistance to funding in war finance is a new contention. I have made no such assertion, and with this fact brought to his notice, Professor Patten will doubtless wish to make an explicit correction of his statement.

JACOB H. HOLLANDER.

Johns Hopkins University.

WHO IS THE TWENTIETH CENTURY MANDEVILLE?

In the last number of the REVIEW my old friend, Professor Patten, does me the honor of letting loose his barbed arrows of sarcasm against a position which, however vulnerable, has hitherto been stoutly defended by me. Two things go without saying in this controversy: first, that nothing which Professor Patten may allege can lessen the admiration that I entertain for his achievements in economic science; second, that his criticism has caused me a searching of heart and has led me to review carefully not only my conclusions but also the various steps in the argument. The issue that has been joined is therefore entirely one of scientific truth. And while Professor Patten will doubtless give me the credit of being as open minded in the matter as he is, I trust that he will not consider me pigheaded if I cannot yet lower the flag.

The interval, however, between the appearance of his criticism and the writing of this rejoinder has been so short that I must content myself here with a brief reply, leaving to what I hope will be the not distant future the more thorough analysis of the problem which the subject deserves.

Let me state, then, at the outset, that in the fundamental point of issue there is really far less difference between us than Professor

Patten thinks. So far as his basic position is concerned—namely the relation of production and consumption—there is no difference at all. I also believe—and have never said anything to the contrary—that in a war like this the very first prerequisite is to reduce consumption at least to the level of production and preferably far below it. The only way to get along, in fact, whether in war or in peace is to produce more than you consume. But, as the famous lines in the play go: "That has nothing to do with the case." The controversy between loans and taxes is quite apart from that issue.

Moreover, while it is both amusing and ingenious, Professor Patten's characterization of me as the twentieth century Mandeville is neither generous nor correct. It is not generous because the patent absurdity of the idea implicit in the poetic effusion quoted by Professor Patten is by no means a necessary conclusion from the principles advocated by me. It is not correct because it is a false analogy. What Mandeville attempted to prove was that private vices are public benefits. But since, as just stated, I have nowhere claimed that private luxury or excessive private expenditure is either a private or a public benefit, the analogy does not hold. On the contrary, if this were a mere matter of calling names I could retort that the true Mandeville is Professor Patten himself, in so far as the essence of the contention is concerned. For as Professor Patten would, of course, not deny that private credit is, to a certain extent at least, legitimate, his opposition to public credit may be boiled down to the statement that what is good in private life is bad in public life. While Mandeville, in short, alleged that private vices are public benefits, Professor Patten claims that private benefits are public vices. And since both of these paradoxes really come to the same thing, a good argument might be made out for the statement that Professor Patten is the real twentieth century Mandeville.

After this rather inconsequential introduction, however, let us come to the real point at issue. The true difference between the two schools of thought represented by Professor Patten and myself is the attitude toward the theory of public credit. Professor Patten contends that all war expenditures must be defrayed from taxes; I argue that there is a substantial place for the utilization of public credit. Professor Patten refers to the fact (p. 93) that to many credit is an obscure or mysterious phenomenon and he then proceeds to give, in outline of course, his theory of credit. Private credit, according to him, has only two functions to perform—to bridge over the interval between the time when the work is performed and the object produced is consumed and, second, to compensate the irregularity of business enter-

prise. All credit to him is therefore not only bank credit but short-time credit and he goes so far as to say that the nearer we come to eliminating credit, except in these two instances, the better for the nation.

Is this, it may be asked, an analysis of the phenomenon worthy of a thinker like Professor Patten? Is it true, in the first place, that all legitimate credit is banking credit; and is it true, in the second place, that all legitimate credit is short-time credit?

To answer the second question first, what shall we say of the ordinary operations of the German banks in financing long-time industrial enterprises? Is it not a fact that one of the chief distinctions between the banks of Germany and those of other countries has consisted precisely in this fact, which is in no mean degree responsible for the prodigious development of German economic prosperity? Is it not true that other countries are taking a leaf out of the book of German experience, and that at this very moment preparations are being made in Great Britain, in France, and in the United States to introduce after the war these German banking methods? And what shall we say of the war conditions themselves? What is the real meaning of our new War-Finance Corporation, with its three billions of so-called notes, if not a direct reply to Professor Patten's contention that all legitimate credit is short-time credit?

If Professor Patten's second point is erroneous, how much more so is his first contention that all credit is bank credit. On the contrary, when we come to analyze modern economic life we shall see that there is a widespread use of two forms of credit, neither of which has anything to do directly with banks. Modern credit is either consumption credit or production credit. Let us take them up in turn.

In former times there was indeed some utilization of consumption credit. Pawnbrokers in some form or other are no doubt as old as civilization itself; and in the primitive agricultural economy, whether of mediaeval Europe or of the southern states of America, many a peasant or cultivator has made use, for good or for evil, of the loans extended to him by the country merchant. But modern consumption credit is of a very different kind. Nowadays the principle of purchase in instalments has become an accepted part of the modern economy. Today we buy pianos and sewing machines, furniture and agricultural implements, workmen's houses and even more substantial edifices in instalments. In fact, in modern times and especially in advanced communities like the United States we have gotten into the habit of securing almost all commodities, except food and clothing, through the

medium of credit. The field of consumption credit is constantly broadening and it is a form of credit which is largely irrespective of the existence of banks.

Far more important, however, in our modern economy is production credit. When we say that our business life is primarily assuming the form of corporate activity, we are virtually stating that modern business is primarily a credit economy. Our railroads, our other public utilities, our industrial corporations and trusts of all kinds have come to depend for their very existence upon the issue of securities. What is a railroad or industrial bond if not a manifestation of long-time, or perhaps even perpetual, credit? What would happen to the construction of buildings and skyscrapers in the city of New York, for instance, if it were not possible to finance the building operations by the use of credit to the extent of even 80 or 90 per cent of the cost? And the credit advanced in such cases is by no means necessarily a short credit. It may run for decades, even for generations. In fine, the whole system of modern industry, and nowhere more than in the United States, is based upon credit which is neither short credit nor necessarily even bank credit. To deny, as Professor Patten somewhere seems to do, that the modern economy is essentially and distinctively a credit economy is to shut one's eyes to the most glaring facts of the situation.

The reasons, of course, why modern credit has assumed these gigantic proportions are: first, that the system of deferred payment, or payment in instalments, greatly lightens the burdens of economic life; and, second, that it renders possible the utilization on a large scale of the marginal capital of society, *i.e.*, that it puts at the disposal of the community those parts of social capital which can be most easily dispensed with by their owners. In both these ways costs are lessened and output increased. Private credit is in its essence productive of wealth. It is far more than a banking phenomenon; it is far more than a short-time phenomenon: it is the very foundation of our modern economic structure.

That credit may be abused is no argument against its use. Because John Law was finally led into the vagaries of the Mississippi scheme is no argument against the existence of banking. Because we have plungers and corners on the stock exchange is no argument against the legitimate function of speculation. He would indeed possess hardihood who should deny the economic utility of private credit as the basis of modern economic life.

But if private credit is socially useful, why should public credit be dangerous? Professor Patten gives us no answer to this question.

On the contrary, his attempt to answer it raises the whole question of objective and subjective costs and leads him to take back not a few of the statements which form a large part of the solid contributions that he has made to economic science.

Professor Patten asks me to state what are the subjective costs which I think can be postponed? "Were they stated, they would be found to be feelings which we compensate in the future at our peril" (p. 92). Let us see.

Is it true that the postponement of payment involves a perilous compensation in the future? Is it true that the postponement of subjective costs can have no influence upon present objective costs?

The statement that the costs of a war, from the objective point of view, must be met in the present is of course entirely true. The guns must be manufactured now and the supplies must be forthcoming now. It is now that they are needed and not in the future. But has anyone in his senses ever thought of denying that fact? And is there any difference between public credit and private credit in this respect? If I buy furniture in instalments can any one deny that the furniture must be produced now? If a railroad secures its capital in large part by the issue of 50-year bonds, does any one deny that the railroad must be built now? If I erect a skyscraper to an overwhelming extent by the issue of long-time securities, does that imply that the skyscraper must not be built now? In all these cases, the articles or commodities are produced now; but the essential point is that they are not paid for now, at least not in cash: they are paid for in promises; or, to put it more exactly, the cash handed over to the sellers of material and labor is almost entirely borrowed. There is a present production but a future payment. The objective costs must indeed be met now—the labor must be hired and the materials secured. These costs cannot be postponed: that goes without saying. But the subjective costs of the producer are lightened. In fact, they are lightened to such an extent that they react upon the objective costs. If the furniture buyer could not pay for the furniture in instalments he would not buy the furniture at all; and with the lessened demand for the furniture, there would be less produced. If the proposed railway could not market its bonds, the railway would not be built. If the real-estate operator could not borrow through his first, second, and third mortgage loans, the skyscraper would not be constructed. In every case, the increase of the subjective costs which would ensue upon the abolition of credit would react upon the objective costs. If there were no credit in these cases there would be no production; or if there

were any production, it would be at a very much higher cost; that is, there would be less production. Credit, in other words, increases production by decreasing costs. The decrease of subjective individual costs may lead to a decrease of objective social costs. The diminution of the total aggregate sacrifice is equivalent to, or is followed by, a greater social production.

But if all this is true of private credit, why is it not equally true of public credit? If it is true of a railway in private hands, why is it not true of a railway that belongs to the government? And if it is true of public credit in peace time, why is it not true of public credit in war time? As a matter of fact, it is as true of war finance as of peace finance. The guns and the supplies must be furnished now. But if we were to rely entirely upon taxes and not at all upon loans, the point is that there would be far less likelihood of their being produced now. They are produced now because they can in large part be paid for in the future through the use of public credit. If they had to be paid for now in cash raised by taxation, not so much would be produced because the excessive taxes would cripple production. As Professor Scott, of Glasgow, so well puts it: "If the choice is between immediate and deferred taxation, why should the burden be postponed, would it not be better to meet it at once and leave the future unembarrassed?" His answer is this: "The mere fact of giving the taxpayer time to adjust himself to a new and heavy burden will lighten it materially for him. Also industry, in time, has a chance of expanding to provide a part of the new imposts."¹

It is clear then, not only that the lessening of the subjective costs, that is of the burden of paying for the supplies, is not necessarily attended by perils, as Professor Patten thinks, but that as a matter of fact, this postponement of payment involved in the diminution of subjective costs may mean not only a smaller total aggregate sacrifice but even a diminution of the objective costs in the present. Public credit, in other words, may give us more guns and more supplies now.

This is a fundamental point that is overlooked by Professor Patten when he discusses the relations between present production and present consumption. As was stated at the outset of this article, there is no difference between us as to the desirability of such a correlation. Our difference consists in the estimate of the scientific probabilities. Professor Patten tells us (p. 97) that taxation "would bring order out of chaos and not only exempt future generations from the burdens of

¹ W. R. Scott. *The Adjustment of War Expenditure between Taxes and Loans*. (Glasgow, 1917), p. 19.

war, but also lighten those of the present." As I have sought to point out elsewhere, however, and as I think could be proved if there were more space, the evils of excessive taxation in this respect are greater than the benefits of moderate taxation. For, in the first place, taxes, especially high income and business taxes, would not necessarily reduce consumption but might lead to borrowing. And, in the second place, to the extent that excessive taxes would restrict production, this influence might very possibly outweigh any effect in reducing consumption, so that the total margin of production over consumption would be less than before. Here again we are fortunate in being able to quote Professor Scott's judicious conclusion in confirmation of our position. "The all-tax method, if applied in practice, would result in a very curious paradox—its object is to avoid loans, but the amount of taxation required would be certain to induce loans through the magnitude of the tax forcing the contributors to borrow in order to pay their taxes, and so the position is reached that a method is recommended in order to avoid borrowing, which, on the contrary, compels borrowing."²

With Professor Patten's views on inflation and his attack upon Professor Hollander there is no occasion to deal here, as Professor Hollander is abundantly able to take care of himself. What, however, needs to be done and what is not even attempted by Professor Patten, is to give a correct analysis of inflation, to point out the distinction between the necessary and beneficial expansion that inevitably takes place in a war and the illegitimate and exaggerated expansion that we call inflation. Above all, it would be necessary to show in detail to what extent inflation is a specific and necessary consequence of loans as against taxes. A recent careful investigator has come to the conclusion that "The probabilities are that very high taxation would cause more inflation than a well devised system of borrowing."³ Although I am not prepared to go quite so far as this, I see no reason to depart from my previously expressed conclusion that there is comparatively little to choose, from the point of view of inflation, between taxes and loans.

One other point of theory made by Professor Patten deserves a word. He emphasizes the fact, at the close of his article, that a higher rate of interest should be paid on the loans and that the opposition of business men both to high taxes and to high rates of interest rests upon a defective view of their own welfare. As to this I shall content myself here with calling attention to the fact that while it is indeed true, as I

² *Op. cit.*, p. 16.

³ Scott, *op. cit.*, p. 17.

have elsewhere contended, that the government should always pay the current rate of interest in issuing its loans and not rely on patriotism alone, not a little can be said in defense of the desirability of keeping the interest rates down to the lowest practicable figure. There are, in fact, three arguments that may be advanced against unduly high interest rates. The first is the well founded objection to profiteering. If, as is now becoming the rule, prices of commodities in general are restricted by government in the supposed public interest, why should not the price of the most important commodity of all, namely capital, be similarly kept down? This argument becomes all the stronger in proportion as the income from this capital—that is, the interest on the public debt—is exempted in part or in whole from taxation. Every one per cent that is paid in the rate of interest yielded by the bonds assumes an ominous significance when the debt is counted by the billions. In the second place, every increase in the rate of interest on the public funds where, as with us, they are sold at par, will bring with it a progressive depreciation in general security values. A 5 per cent government bond will mean a considerable fall in the price of a 4 per cent railway or industrial security. In a country like ours where such securities form the foundation of all industry, a slump in stock exchange values will have a widespread and marked effect upon production in general. In the third place, any increase in the price of capital necessarily restricts the utilization of capital. It is true, indeed, that the ultimate effect of an increase in interest rates may be to set into motion those forces which spell an increase in capital itself. But as against these ultimate results must be put the immediate checks upon all activity caused by the higher costs involved in the rise of the discount rate. Thus from the point of view of industrial prosperity not a little may be said in defense of the business man's view which Professor Patten characterizes as "a crude antipathy."

In that part of Professor Patten's article which deals with the history of the theory, rather than with the theory itself, there is also abundant room for dissent. Professor Patten has much to tell us of the aversion from loans exhibited by the early British economists. Two considerations, however, offer themselves there. In the first place, a more detailed study of the British economists would show that the early opinion was by no means so unanimous as Professor Patten would have us believe. Second, the unanimity, so far as it is found, is very largely due to insufficient analysis. Adam Smith wrote long before all the modern principles of modern credit had been elaborated; for when he wrote he was still confronted by a cash economy and not a credit

economy. His view of public credit, moreover, was largely tinged by the same opposition to public activities and governmental functions in general which were so characteristic a mark of his age. Moreover, every careful investigator would have to agree with the judgment recently pronounced by Professor Edgeworth when he states: "The authority of Adam Smith and the other classical economists who denounced loans would count for much, but that their judgment is based upon a disputable conception as to the nature of a public loan."⁴

And when Professor Patten makes what he thinks are telling quotations from Chalmers he forgets that Chalmers was a feudal conservative whose opposition to loans, like that of John Stuart Mill, was in large part based upon the conception of the wages fund—a doctrine the error of which has been indisputably proved by modern science. Nor is Professor Patten much happier when he states that these views have "ever since been regarded as an essential part of economic theory." So far is this from being the case that, on the contrary, this British view never found any lodgment among the German, Italian, or French economists, many of whom went quite to the opposite extreme and well nigh all of whom refused to accept the British reasoning. But what is still more important is that virtually all of the leading British economists of the last generation have broken away completely from the views represented by Professor Patten. I may be pardoned for stating that with the same mail that brought Professor Patten's onslaught on my address there came a batch of appreciative comments from the leading British economists, of which I shall take the liberty of quoting only one. Were it not that Professor Edgeworth had already given public expression to his views I should otherwise not have felt at liberty to make this extract from a private letter: "Your conclusion commands my assent and the reasoning based on the conception of subjective costs and aggregate sacrifice appears to me perfectly sound." Virtually the only British writer who shares the view expressed by Professor Patten is Mr. Hartley Withers, who is continually harping on the doctrine of objective costs in *The Economist*⁵ which he so admirably edits, but whose book on the subject has been rather

⁴ F. Y. Edgeworth, *Currency and Finance in Time of War*, (Oxford, 1917), p. 19.

⁵ In my address "Loans versus Taxes in War Finance," in the *Annals of the American Academy of Political and Social Science* for January, 1918, I stated on page 65 that "Mr. Hartley Withers, who originally held this view, has been so influenced by the rather hasty pronouncement of some American writers that he has recanted." Mr. Withers writes to me that I am mistaken

adversely criticised in this respect. As Professor Price says at the close of a long review: "The moral then can be drawn that, in spite of cogent arguments pressed with robust conviction by Mr. Withers, in his book, as week by week in the editorials of *The Economist*, the case for taxes against loans is not immune from demurrer or rebuttal."⁶

It may therefore be contended that Professor Patten is far from proving his point. Not only does he give us, quite unwittingly of course, an incorrect picture of the history of the doctrine but he is entirely out of harmony with the trend of modern economic thought. With the exception of a very few American economists, who had never previously given much attention to the problems of public finance, it may be said that the overwhelming mass of leading writers at present support the views which Professor Patten opposes. In a series of articles which I propose to publish in the near future I hope to show in detail not only how mistaken is Professor Patten's intimation as to the course of economic theory, but also how erroneous are the alleged facts found in the ordinary treatises as to the history of loans and taxes in war finance. One writer has copied from another and no one has taken the trouble to get the truth from the original sources. When the facts are published the opinions of the classical economists will be set in their proper perspective and a new basis will be furnished for present-day discussion.

It is impossible to refrain, in conclusion, from adverting to Professor Patten's contention that "The problem of loans and taxation is becoming the test of two systems of economics as diverse in their aims as the mercantile system and that of Adam Smith. A compromise between Smith and a mercantilist is impossible and so is a tax system partly resting on bonds and partly on taxation" (p. 96). With all due deference to my good friend I should like to call attention to the fact that economic statesmanship and even economic theory is often compounded of compromise. Were we compelled to choose, in either theory or practice, between the laissez faire economist and the socialist, the choice would be difficult. The mischievous critic might even ask Professor Patten himself whether the theory of protection, which he has done so much to expound, is not really a compromise between Adam

in this. "This is not so. If I am wrong it is a case of original sin. The chapter in *Our Money and the State* was written before I had seen Professor Sprague's article. I thought that it might interest you to hear that I was not echoing Sprague, but have made my own blunder, if it be one." It is needless to say that I deeply regret my unfounded imputation.

⁶ *The Oxford Magazine*, February 8, 1918, p. 156.

Smith and the mercantilists? In fact, the whole conception of the distinction between the use and the abuse of any economic institution rests upon the idea of a compromise or a mean between untenable extremes. We may close with the well considered opinion of Professor Price—an opinion that is shared by Britishers like Edgeworth, Nicholson, and Scott, and by Americans like the two Adamses, Bullock, and Plehn—that: “The problem of distributing the weight of war finance equitably between the living and future generations, has not, we opine, been relegated to the limbo of the otiose or obsolete; and here, as elsewhere, a *via media* is probably the best path for discreet efficient statesmanship to tread.”⁷ If Professor Patten desires to become an advisor to statesmen, I recommend his pondering this sentence.

EDWIN R. A. SELIGMAN.

⁷ Price, *op. cit.*, p. 157.

“METHODS OF PROVIDING FOR NEW BUSINESS EXPENSES BY LIFE INSURANCE COMPANIES”: A REPLY

The premium charged for life insurance contracts today is predicated on certain assumptions regarding the rate of mortality which will probably be experienced, the interest rate earned on invested assets, and the rate of expenditure necessary to the several operations of life insurance administration. In the advance determination of the premium to be charged the policyholder the net or mortality premium is first calculated—that portion which is calculated on the basis of mortality and interest assumptions to care for the policyholder's share of average mortality costs. Mortality costs are thus allocated always on the basis of averages-mutuality, some one has called it. That is, a particular policyholder may pay a far smaller amount in net (mortality) premiums than the amount paid to his beneficiary at the maturity of his policy, or he may pay far more than this amount. On the *average*, for such is insurance, they balance. But such is not necessarily the case with the loading element of the premium, the part which cares for expenses. It seems to be a matter of fair agreement that in so far as possible each policyholder shall pay the expenses incident to his own policy. This principle is accepted in a recent discussion of the problem of new business expenses.¹ The principle cannot be adhered to for the first five or six years after a policy is issued, for these early years constitute the period of heavy expense, and the loading cannot be made level

¹ H. L. Rietz, in THE AMERICAN ECONOMIC REVIEW, Dec., 1917, p. 832.

over the life of the policy and at the same time sufficient these first few years to pay the excessive expenses incident to the issue of the policy. To put it concretely, a participating ordinary life policy at age 35 may be issued for \$27 annual premium. In the original calculations this amount represents, in round numbers, \$21 net, or mortality premium and \$6 expense loading. The expense on this policy during the year of issue will be far in excess of \$6; hence if the policy should mature this year it will not entirely have paid its expense costs from its own loadings.

The problem of new business expenses, which is discussed in the article cited above, is essentially a problem of finding a source from which to draw the funds for these large early expenditures, while at the same time maintaining the two principles stated above—that mortality costs shall be paid on the basis of averages while expenses shall be paid as nearly as possible by each policyholder.

It must be remembered that the state holds life insurance companies to rigid accountability for the funds which they collect from policyholders. For this purpose each premium may be considered as made up of three elements: current mortality, reserve for future liabilities, and loading. The state, in effect, permits the company to spend necessary amounts from the first and third elements, but the reserve must be accredited to the policyholder. This element, like the "net" portion of the premium in the calculations of the company, is based on an assumption regarding future mortality experience and future interest earnings. The essential principle involved in this disposition of life insurance premiums lies in this—that there is a definite fund for a definite purpose: a current mortality fund for current mortality purposes, a reserve fund for maintenance of reserves, and a loading fund for payment of expenses; and if participating policies are issued on this basis, then savings from any of these three elements shall return to the policyholder on the form of dividends.² This statement is based on the presupposition that the original assumptions are adequate to carry out the purposes of the company—that the net premium will on the average pay insurance (mortality) costs and accumulate funds which compounded at a stated interest rate will equal the face of the policy at maturity; and that the expense loading will pay all expenses on the policy. Each policy will, however, not be able to pay its initial expense costs from initial loadings, but if the principle is followed that it

² Since participating insurance largely sets standards for premiums the discussion may be confined to participating policies.

shall pay its own expense costs it must within a few years show sufficient loadings in excess of current yearly costs to care for the excess of expenses over loading the first year. If this may be accepted as a correct principle it then follows that net premiums may be used only for mortality provision and that loadings may be used only for expenses; that if practical administrative policy requires the *appropriation* of one element to support the other this appropriation shall be temporary and shall be replaced at the earliest possible moment.

The methods used at present to pay the heavy expenses of the first year on policies are three: (1) payment from accumulated surplus; (2) the use of modified preliminary-term valuation; and (3) select and ultimate valuation. The first method is available only to large companies which have a considerable surplus; the attempt to use it with small companies means swift and sure death. The second may be used by most companies not subject to the valuation laws of New York state, where the third method is in force.

The question of "criticism" of preliminary-term valuation, or "defense" of select and ultimate, which is raised in the article referred to above reduces to this proposition: Do these methods maintain the principle that net premiums shall be used only for mortality, with return of savings in the form of dividends; and that loadings shall be used only for expenses, with like return of savings in the form of dividends? In contrasting these two methods of valuation it does not meet the issue to say that the full net premium standard of valuation is too high. If it is too high, dividends will be larger or the funds will be accumulated earlier. There is no justification thereby in spending the excess for new business. The issue may be stated in another way thus: Do these modifications of full net premium valuation maintain the principle that mortality costs shall be averaged, but that expense costs shall be paid by each policyholder as incurred? If they compel a full accounting for new business expenses within a few years after the issue of the policy, sufficient in number for excess loadings to pay the expense debt of the first year, then the policy may be said to have paid its own expense costs, otherwise not.

The division of our illustrative premium into two funds, \$21 net and \$6 loading, makes it possible to carry out the above principle. The \$21 will pay current mortality costs and accumulate a reserve which on assumed interest and mortality rates will at age 96 equal \$1,000. The \$6 loading will put the policy on a self-supporting basis in a very few years. If now it is desirable to reserve on a lower basis, in other words, to bring the interest and mortality assumptions more in accord with

experience, it may be done, but it should result in a lower net premium with no increase in the loading charge, since the \$6 loading over the life of this policy is all-sufficient.

These facts furnish the basis on which the two methods of valuation may be compared. Both being means of modifying full net premium valuation so as to release funds from the first premium to pay new business expenses it is desired to know whether these released funds are eventually taken from the net premium or from the loading element. If from the first, all reserves thereafter will be smaller than full net premium reserves; if from the second, later reserves will be unaffected. The terminal reserves on a twenty year endowment issued at age 35, American Experience 3 per cent basis are:

	<i>First year</i>	<i>Tenth year</i>
1. Full net premium standard.....	\$34.59	\$107.45
2. Modified preliminary-term standard.....	21.99	399.71
3. Select and ultimate standard.....	28.35	407.45

These figures show that both modifications result in smaller reserves the first year than required by the full standard; but that by the tenth year under modified preliminary-term the reserves are still below the full standard, while under select and ultimate the full standard is again maintained. Concretely, the fundamental difference between the two is this, that with select and ultimate the expenses from new business shall not be so great that they cannot be made good from margins in loadings accruing during the first five years, while with preliminary-term methods this full reserve is never reached until the premium payments on the policy³ are completed—20 years on the endowment used in the illustration. The one method compels an early accounting for new business expenses, the other does not. The one method pays new business expenses from margins in loading during the first five years, the other distributes it on the basis of averages over the life of the policy. The latter thus violates the principle with which we began, and which was accepted by Professor Rietz in his defense of preliminary term. The one standard denies the right of unlimited expansion with the privilege of putting off for years the day of reckoning; the other grants that somewhat questionable privilege.

BRUCE D. MUDGETT.

University of Washington.

³ There is a modification of preliminary term in New Jersey which requires that full standard reserves be maintained after seven years. In practical effect this is identical with select and ultimate valuation.

REVIEWS AND NEW BOOKS

General Works, Theory and Its History

NEW BOOKS

ADAMS, H. C. *Description of industry; an introduction to economics.* (New York: Holt. 1918. Pp. x, 270. \$1.25.)

GARINO-CANINA, A. *Intorno al concetto di industria naturale nella letteratura economica.* (Torino: Bocca. 1916. Pp. 53.)

WORMS, R. *Philosophie des sciences sociales.* Vol. 2. *Méthode des sciences sociales.* Second edition, revised. (Paris: Giard & Brière. 1918.)

The teaching of economics in Harvard University. A report presented by the division of education at the request of the department of economics. Harvard studies in education, vol. 3. (Cambridge: Harvard Univ. Press. 1917. Pp. viii, 248. \$2.)

To be reviewed.

Economic History and Geography

NEW BOOKS

BELDEN, A. L. *The fur trade of America and some of the men who made and maintain it, together with furs and fur bearers of other continents and countries and islands of the sea.* (New York: Peltries Pub. Co. 1917. Pp. 591.)

BOYNTON, A. J. *The economic resources of the Kansas City zone.* Reprinted from *Journal of Industrial and Engineering Chemistry*, vol. 9, no. 7. (Lawrence, Kans.: The author. 1917. Pp. 15.)

BREWSTER, E. H. *Roman craftsmen and tradesmen of the early empire.* (Menasha, Wis.: Banta Pub. 1917. Pp. 101. \$1.)

CALHOUN, A. W. *A social history of the American family from colonial times to the present.* Vol. II. *From Independence through the Civil War.* (Cleveland, O.: Arthur H. Clark Co. 1918. Pp. 390. \$5.)

CONNOLLY, J. *Labor in Ireland: labor in Irish history and the reconquest of Ireland.* (Dublin and London: Maunsell. 1917. Pp. 346. 4s.)

CRAIG, N. B. *The history of Pittsburgh; with a brief notice of its facilities of communication and other advantages for commercial and manufacturing purposes.* New edition. (Pittsburgh, Pa.: J. R. Weldin Co. 1917. Pp. 310. \$2.50.)

DIETZ, F. C. *Finances of Edward VI and Mary.* Smith College studies in history, vol. III, no. 2. (Northampton, Mass.: Dept. of Hist. of Smith College. 1918. Pp. 135.)

A detailed account of twelve years of English fiscal history in a

period of which little was previously known, based in large part on documentary material and comprising a statistical appendix.

FULLER, G. N. *Economic and social beginnings of Michigan: a study of the settlement of the lower peninsula during the territorial period, 1805-1837*. Michigan historical publications, university series, no. 1. (Lansing, Mich.: Michigan Historical Commission. 1916. Pp. lxxii, 630.)

Inspired by a love of his native state the author of this volume has attempted with meticulous and tender care to recount the difficulties of the early settlements and the successful efforts of the pioneers to overcome them. But the method is that of the scholar, dependence being placed almost exclusively upon contemporary sources. The result is a fresh and dependable work, in which the social and economic factors hold first place, though not entirely to the exclusion of political and other phases of development.

A striking feature of the book, as well as a thoroughly commendable one, is the large space given to the geography and physiography of the region whose history is described. The character of surface and soil, the presence of water power, drinking water, forests, and other physical characteristics, together with their effect upon settlement, are set forth clearly and at length. Indeed these factors were the most important in determining the early settlements; later the roads and improvements played a greater rôle in directing the movement of the immigrants who were attracted to the territory.

Dr. Fuller distinguishes three periods in the settlement of Michigan. Before 1818 there was practically no colonization, the only white men in the region being fur traders. But from 1818 to 1823 occurred the first period of agricultural settlement, which was marked by the first public land sales and the beginning of navigation on the Great Lakes. Migration from the East set in and a considerable addition was made to the resident population. A second period extended from 1823 to 1829, when the influence of the Erie Canal was seen in a strong westward movement which sent a stream of settlers into the southern counties of the state. This period of expansion really continued until 1832, when a number of mishaps—an epidemic of cholera, the Black Hawk War, and finally the panic of 1837—checked the immigration and retarded the development of the state.

The main emphasis of the book is placed upon the work of pioneering and settlement, the composition and character of the population, the improvement of means of transportation, and trade and commerce. The apparatus of maps, bibliography, and index make it a useful as well as an interesting book.

E. L. BOGART.

GEORGES, *La Russie commerciale et industrielle*. A translation. (Paris: Dunod & Pinat. 1918. Pp. 302. 4.50 fr.)

HARING, C. H. *Trade and navigation between Spain and the Indies in the time of the Hapsburgs*. (Cambridge: Harvard Univ. Press. 1918. Pp. xxviii, 371. \$2.25.)

HAYEM, J. *Mémoires et documents pour servir à l'histoire du commerce et de l'industrie en France*. Cinquième série. (Paris: Hachette. 1917. Pp. xiii, 276. 9 fr.)

The fifth volume of this useful series is composed of documents and text by a Norman archivist, M. Ph. Barrey, describing chapters in the history of Le Havre: Les Normands au Maroc au XVI^e siècle, Le Havre transatlantique de 1571 à 1610, Le Havre et la navigation aux Antilles sous l'ancien régime, la question coloniale 1789-1791.

KELTIE, J. S., editor. *The statesman's yearbook: statistical and historical annual of the states of the world for the year 1917*. (London: Macmillan. 1917. Pp. 1504.)

KIRKALDY, A. W., editor. *Industry and finance; war expedients and reconstruction; being the results of enquiries arranged by the section of economic science and statistics of the British Association during the years 1916 and 1917*. (New York: Pitman. 1918. Pp. 371. \$1.75.)

LEBON, A. *Problèmes économiques nés de la guerre*. (Paris: Payot. 1917. 4 fr.)

LORIA, A. *The economic causes of war*. (Chicago: Kerr. 1918. Pp. 188.)

MARTI, O. A. *The Anglo-German commercial and colonial rivalry as a cause of the great war*. (Boston: Stratford Co. 1917. Pp. xiv, 83.)

MORRISON, A. J. *East by west, essays in transportation; a commentary on the political framework within which the East India trade has been carried on from very early times*. (Boston: Sherman, French & Co. 1917. Pp. 177. \$1.25.)

MUNRO, D. G. *The five republics of Central America; their political and economic development and their relations with the United States*. Carnegie Endowment for International Peace, Division of Economics and History. (New York: Oxford Univ. Press. 1918. Pp. 332. \$3.50.)

OBERHOLTZER, E. P. *A history of the United States since the Civil War*. Vol. I. 1865-1868. (New York: Macmillan. 1917. Pp. xi, 579. \$3.50.)

This is a general history and only in part gives special consideration to economic developments. Chapter 4 considers the inflation of the currency after the Civil War and devotes some 20 pages to telegraphs and cables. Extended comment is also made upon the development of American shipping, the postal system, steamboats, railways, and the early development of the oil business. Chapter 5, Beyond the Mississippi, relates to the taking up of homesteads, the overland roads, and the beginning of the trans-Mississippi railroads. The abundant notes are restricted almost exclusively to original sources.

OGG, F. A. *National progress, 1907-1917*. The American nation: a history, vol. 27. (New York: Harper. 1918. Pp. xxii, 430. \$2.)

A new supplementary volume in the American Nation series, edited by Professor Hart. It contains chapters on Currency and tariff, 1907-1909; Railroad regulation, 1901-1913; Corporations and trusts, 1901-12; Industry and labor, 1905-1914; Conservation and reclamation, 1905-16; Population and immigration, 1906-1917; Financial, industrial, and colonial policy, 1913-1917; and Economic problems and policies of war time, 1914-1917. The useful bibliographies characteristic of the series are continued in this volume.

PITMAN, F. W. *The development of the British West Indies, 1700-1763*. Yale Historical Publications. Studies IV. (New Haven: Yale Univ. Press. 1917. Pp. xiv, 495. \$2.50.)

The author has provided in this volume a book which has long been needed—a scholarly and reliable account of the development of the British West Indies in the eighteenth century. He does not attempt a detailed political narrative, but gives adequate attention to the broader aspects of government and policy, up to and including the Peace of Paris, and discusses at length the interesting features of social and economic life that developed in a colony whose plantations were worked by negro slaves and were owned in large part by absentee landlords.

The author has drawn most of his facts at first hand from manuscripts in English archives, and provides a wealth of statistical material rendered more significant by presentation in the form of charts. The book is an example of good workmanship throughout, and is a valuable contribution to economic history. C.D.

PUTNAM, J. W. *The Illinois and Michigan canal: a study in economic history*. Chicago Historical Society collections, vol. X. (Chicago: Univ. Chicago Press. 1918.)

REDWAY, J. W. *Commercial geography; a book for high schools, commercial courses, and business colleges*. Revised edition. (New York: Scribner. 1917. Pp. 423. \$1.25.)

RENARD, G. *Les répercussions économiques de la guerre actuelle sur la France (1er Août 1914—15 Mai 1917)*. (Paris: Alcan. 1917. Pp. 516. 11 fr.)

The author distinguishes three periods in the reaction of economic France to the great war: the first few weeks of confusion and improvisation, a period of adaptation, and finally, from near the end of 1916, a painful period of struggle and readjustment. Through each of these periods the author traces the development of economic life under the heads of exchange, production, and consumption (including public finance); and provides from many fugitive sources interesting facts showing the effects of the war on the French economic organization. With this contribution to contemporary history he combines a discussion of the economic problems of demobilization and the return to peace. C.D.

ROWE, L. S. *The early effects of the European war upon the finance, commerce, and industry of Chile*. Preliminary economic studies of the war, edited by DAVID KINLEY, Carnegie Endowment for International Peace. (New York: Oxford Univ. Press. 1918. Pp. viii, 63.)

The author supplemented his previous knowledge of Chile by two months of special study and this monograph was submitted in 1915. There are chapters on the economic and physical background including a consideration of nitrate and other mineral resources, the effect of war on the national finances and on currency and banking, on agriculture, on domestic and international trade, and on labor conditions. The conclusion notes the great distress which the European war has brought upon Chile.

SCHAFER, J. *History of the Pacific Northwest*. (New York: Macmillan. 1918. Pp. 323. \$2.25.)

SCHLESINGER, A. M. *The colonial merchants and the American Revolution, 1763-1776*. Columbia University studies in history, economics, and public law, vol. LXXVIII. (New York: Longmans. 1918. Pp. 647. \$4.)

STEVENS, J. and BURNHAM, J. *Documents on railways and steam carriages over canal navigation (1812)*. *Recollections of the Revolutionary War. Magazine of History*, extra no. 54. (Tarrytown, N. Y.: W. Abbott. 1916. Pp. 57.)

VICTOR, E. A., editor. *Canada's future. What she offers after the war. A symposium of official opinion*. (Toronto: Macmillan. 1916. Pp. xv, 320.)

Contains a series of contributed articles relating to the more important industries of Canada. Among them are to be noticed papers on peat development, labor conditions, the dairying industry, fisheries, lumber, fruit ranching, and mining.

WARD, R. DEC. *Climate, considered especially in relation to man*. Second edition. (New York: Putnam. 1918.)

WESTERGAARD, W. *The Danish West Indies. Under company rule (1671-1754). With a supplementary chapter, 1755-1917*. (New York: Macmillan. 1917. Pp. xxiv, 359. \$2.50.)

Like Pitman's book on the British West Indies, noticed above, this volume by Professor Westergaard is an example of the new standard of scholarship in American colonial history, a standard more exacting than formerly in its demand for the critical use of manuscript material, and more productive by reason of its broader point of view with respect both to the territory and the topics covered. The student of colonial economy will find in this book a careful study of the slave trade and of the plantation system in the Danish West Indies, with somewhat more attention to the detail of political narrative than is given by Pitman, but constructed with the same respect for original authorities and with a similar scholarly apparatus.

C.D.

WILSON, G. L. *Agriculture of the Hidatsa Indians, and Indian interpretation.* (Minneapolis: Univ. Minn. 1917. Pp. viii, 129. 75c.)

ZABRISKIE, L. K. *The Virgin Islands of the United States of America; historical and descriptive, commercial and industrial facts, figures, and resources.* (New York: Putnam. 1918. Pp. 339. \$4.)

The American year book. A record of events and progress for 1917. Edited by Francis G. Wickware. (New York: Appleton. 1918. Pp. xx, 822. \$3.)

This is the eighth issue of this annual. It contains chapters on Public lands, by Morris Bien; Reclamation, by F. G. Harden; Public services, by R. C. Harrison, including a treatment of public service commissions, corporations and franchises, and municipal ownership; Economic conditions and the conduct of business, by S. S. Huebner; Public finance, by C. C. Williamson; Banking and currency, by R. B. Westerfield; Life insurance, by W. M. Strong; Property and casualty insurance, by S. S. Huebner; Socialism, by Carl D. Thompson; Immigration, by F. J. Warne; Unemployment, by John B. Andrews; Charity, by William T. Cross; Labor, by J. B. Andrews; Labor legislation, by I. O. Andrews; Agriculture, by E. W. Allen; Manufactures, by W. M. Steuart; and Trade, transportation and communication, by G. G. Huebner and R. Riegel.

The current business cyclopedia. January-March, 1917. (New York: Cumulative Digest Corporation. 1917. Pp. 506.)

Financial and commercial review, 1917. (London: Swiss Bank Corporation, 43 Lothbury. 1918. Pp. 60.)

Imperial year book for the Dominion of Canada, 1917-18. Edited by A. E. SOUTHALL and C. H. MOODY. (Ottawa: Imperial Year Book, Box 55. 1918. Pp. 636.)

Contains a large amount of statistical material similar to that found in the World Almanac and the Statesman's Year-Book. Thirty-odd pages deal with natural resources and 70 pages with trade and commerce. Descriptive material is more generously amplified than is usual in volumes of this kind.

The new atlas and commercial gazeteer of China. Being a complete and comprehensive synoptical survey of China's domestic and foreign trade from the earliest times down to today. (Shanghai, China: North China Daily News. Pp. 525.)

Royal Commission on the natural resources, trade and legislation of certain portions of his majesty's dominions. Evidence taken in the central and western portion of Canada in 1916. Part II. (London: Wyman. 1918. 4s.)

Cenni statistici sul movimento economico dell' Italia. La legislazione economica della guerra e le imposte e tasse in Italia. (Milano: Banca Commerciale Italiana. 1917. Pp. 1083.)

Agriculture, Mining, Forestry, and Fisheries

NEW BOOKS

BLACK, C. C. *Corn production act, 1917. With explanatory memorandum.* (London: The Land Union. 1917. Pp. 80. 4s.)

COLLINGS, J. *The great war. Its lessons and its warnings.* (London: Rural World Pub. Co. 1917. Pp. 113.)

Emphasizes the need of reduction of the acreage in grass, intensive cultivation and division of agricultural lands, reclamation of waste lands, and state aid in order to meet the demands of war time.

CROOKES, SIR W. *The wheat problem.* Third edition. (New York: Longmans. 1917. Pp. xvi, 100. \$1.25.)

The precarious situation in which England finds herself with respect to a food supply, especially a supply of wheat, is the occasion for a new edition of this book. The body of the book is the presidential address of the author before the British Association for the Advancement of Science in 1898. The address was orthodox Malthusian doctrine tempered somewhat with a hope that the chemists would be able from time to time to give mankind a new lease of life by making possible a greater production of wheat. Speaking of the facts about to be presented the author says: "They show that England and all civilized nations stand in deadly peril of not having enough to eat. As mouths multiply, food resources dwindle." Twenty years ago the address called attention to the danger of not taking "necessary precautions to supply ourselves with the very first and supremely important munition of war—food." The author pointed out that while the United Kingdom imported 75 per cent of her wheat, it was by no means absurd to believe that it all could be grown at home. The great desideratum was nitrogen, but that could be obtained from the air—the Germans were so obtaining it.

Not only is England likely to be hungry for bread, but the wheat-eating world is growing in population while the wheat-producing acres are about all in use. What is needed is a thirty bushel crop in place of a thirteen bushel crop. It is admitted that the wheat area has expanded much beyond the prediction made in 1898, but it merely means a brief postponement of the evil day. Fertilizer, not more acres, is the hope. War is the immediate cause of alarm; famine the ultimate danger.

A concluding chapter by Sir R. Henry Rew gives an estimate of probable future wheat supplies. Moreover, he calls attention to the possibilities of making bread from other grains. The emergency measures of the food administration will make the country less dependent on importations.

B. H. HIBBARD.

DICK, W. J. *Carbonizing and briquetting of lignites. Economic possibilities.* (Ottawa: Commission of Conservation. 1917. Pp. 24.)

EARNSHAW-COOPER, W. *British industries after the war. I. The land industry.* (London: Cent. Committee Nat. Patriotic Organs. 1917. Pp. 52.)

HARLAN, C. L. *The agricultural situation and the food problem.* (Atlantic, Iowa: News Pub. Co. 1918. Pp. 17.)

JAMES, G. W. *Reclaiming the arid West; the story of the United States reclamation service.* (New York: Dodd, Mead. 1917. Pp. xxvii, 411. \$3.50.)

KELLOGG, V. and TAYLOR, A. E. *The food problem.* (New York: Macmillan. 1917. Pp. xiii, 213. \$1.25.)

The authors have succeeded in getting out a brief, clear statement of the present situation of our western European allies with regard to cereals, fat, meat, dairy products, and sugar, etc. The book is not limited to a general statement of the condition and need, but goes further and points out in "precise terms just what we must do, and how do it, to meet our duty in the matter as a nation and as individuals." The Allies must for humanitarian reasons and for success of arms consider themselves as having a sort of common cupboard whose supply must be most intelligently dispensed. As a description of the organization for food control in the various nations, emphasis is placed upon the difference between what these organizations *may* do and what they *can* do. The latter depends upon a great campaign of education by which the people can be persuaded to eliminate waste, and substitute foods, and finally actually lessen consumption—a thing that can only succeed through the actual support of public opinion. The drastic actions of England, France, and Italy for food saving and control make American sacrifice seem essential. Grains, meat, sugar, fat, the four essentials asked of us, are reviewed in detail for each of the countries above mentioned. There is also a discussion of Germany's food experience and European attempts at price control.

The second half of the book discusses the principles of food in relation to physical and psychological necessity and many practical suggestions for changes in food habits, for various substitutions, and for elimination of waste are here to be found.

HENRIETTA STEWART SMITH.

ORWIN, C. S. *The determination of farming costs.* (Oxford: Clarendon Press. 1917. Pp. 144. 5s.)

A report of the Institute for Research in Agricultural Economics. Contains bibliography.

SMITH, S. S. *The mining industry in the territory of Alaska during the calendar year 1916.* Bulletin 153. (Washington: Dept. of the Interior, Bureau of Mines. 1917. Pp. v, 89.)

SMITH-GORDON, L. and STAPLES, L. C. *Rural reconstruction in Ireland.* (London: King. 1918.)

STONE, R. W. *Gypsum products. Their preparation and uses.* Technical paper 155. Mineral technology 19. (Washington: Dept. of the Interior, Bureau of Mines. 1917. Pp. 67.)

TURNOR, C. H. *The land and the empire.* (London: John Murray. 1917. Pp. 144.)

The coal catalog combined with coal field directory for the year 1918. (Pittsburgh: Keystone Pub. Co. 1918. Pp. 650.)

International year book of agricultural statistics, 1907-1916. (Rome: International Institute of Agriculture. 1918. Pp. 1,000. \$2.)

The production of copper, gold, lead, nickel, silver, zinc, and other metals in Canada during the calendar year 1916. (Ottawa: Dept. of Mines, Mines Branch. 1917. Pp. 76.)

Report of the resources and production of iron ores and other principal metalliferous ores used in the iron and steel industry of the United Kingdom. (London: Dept. of Scientific and Industrial Research. 1917. Pp. 145. 2s.)

Summary report of the Department of Mines for calendar year ending December 31, 1916. (Ottawa: Dept. Mines. 1917. Pp. viii, 183.)

Transportation and Communication

Railway Rates and the Canadian Railway Commission. By DUNCAN A. MACGIBBON. Hart, Schaffner and Marx Prize Essays, XXIV. (Boston: Houghton Mifflin Company. 1917. Pp. 257. \$1.75.)

Part I of this work contains a historical survey of Canadian waterways and railroads, and part II is devoted to the specific problem of railway regulation and the functions and achievements of the Board of Railway Commissioners. It is clear, therefore, that Mr. MacGibbon has done a good deal more than merely to pose the problem of railway rates in theory and practice in Canada. It is patent also that it was essential to survey the field of water and rail transportation in the Dominion in order that a background might be obtained for the adequate discussion of the problems of rate regulation.

Aside from official records and general works on the history of traffic and transportation in the Dominion, there are available—with the exception of miscellaneous contemporary articles and pamphlets—few works of value on Canadian transportation. The general works include Trout's *Railways of Canada*, McLean's *National Highways Overland*, and Skelton's *Railway Builders*. Obviously, therefore, in view of Canada's railroad history, both with respect to its uniqueness and its close relation to the political development of the nation, Professor MacGibbon's work is doubly welcome.

It may be said at once that this book is scholarly and thoroughgoing in its treatment of the subject, and fair and judicial in its conclusions. Its publication at this juncture, however, is particularly opportune in view of the present railway situation in the Dominion, a situation in which both the government and the public are subjecting the nation's railway policy to the closest analysis and investigation.

A preliminary chapter is properly devoted to a historical study of the development of Canadian waterways and the economic value of the canal system. To any one who has given attention to this subject it is clear that, however valuable canals were in pre-confederation days, they are not now a significant factor in controlling railroad rates. It must not be forgotten, however, that the magnificent chain of lakes and rivers, with their connecting canal links, afford an outlet during the season of navigation for the grain and other agricultural products of the prairie provinces; and that, therefore, water competition, aside from canals that are now in use largely for tourist and local traffic, still remains an important factor in controlling railroad rates in the Dominion.

Mr. MacGibbon admirably summarizes railway history and policy in the early days of the Dominion, ending with the year 1867. It is evident that the traffic policy of that period was colored in great measure by the fact that Canada had always to meet the competition of American rail and water carriers, and that both countries were competing for immigrants from Europe. In addition to this, there was the military consideration which had an important bearing upon the general situation. The Rideau Canal was constructed, between Kingston and Ottawa, rather as a military undertaking than as a work of economic value; and among the multiplicity of arguments advanced for the building of the Intercolonial, the securing of a railway system removed from the menace of easy military control by the United States was perhaps given the most weighty consideration. However that may be, the confederation year, 1867, found the Dominion equipped with an extensive canal system, a considerable mileage of railroads in Ontario and Quebec, and committed to a policy of government ownership for the projected railroad that was to link up the maritime provinces with upper and lower Canada.

It was not, however, until the era of transcontinental railway construction set in, with the building of the Canadian Pacific, that the railway situation in Canada evoked world-wide interest. Lavish

land grants and huge cash subsidies permitted the Dominion to indulge in what many now consider an extravagant program of railroad construction, the Canadian Pacific being followed by the building of the Canadian Northern and the Grand Trunk Pacific. The outcome of this policy has been the covering of eastern and western Canada with networks of railways connected by lines built across the barren area directly north of Lake Superior. It is obvious that for many years to come the Dominion will be faced with railroad problems quite unique in character—the lack of local traffic over a long mileage in northern Ontario and Quebec, and the maintenance of a railway “bridge” constructed at great expense through this barren territory, for the purpose of linking up the economic life of the prairie provinces with that of eastern Canada.

These facts have an important bearing upon Professor MacGibbon's main problem—the regulation of railway rates in Canada. After what appears to the reviewer an entirely too brief study of the structure of freight classification in the Dominion, Mr. MacGibbon turns directly to the analysis of public control of railway rates. He approaches this question from four essentially different standpoints: the bearing of the common law upon rate making in the earlier, mainly pre-confederation, period; the control of rates by charter provisions; statutory control of rates; and the more recent development of rate regulation by the Board of Railway Commissioners. Here he makes a most valuable contribution to the theory of railroad rate regulation in Canada. Professor MacGibbon quite correctly emphasizes the fact that the fourth phase of rate regulation in the Dominion, the period of regulation under the Board of Commissioners, is the natural and inevitable outcome of the earlier attempts to regulate rates under the common law, by specific charter provisions and by direct statutory control. It goes without saying that a great stride forward was taken in the direction of scientific rate regulation when the railroads were placed beyond the direct supervision of the Railway Committee and Parliament.

As already remarked, part II is given over to a close analysis and discussion of rate regulation under the Board of Railway Commissioners. Various rate theories have been developed in recent years in answer to the charge of excessive rates; the main types of appeal on this count being against discriminatory rates, rates inimical to public policy, and rates which, in themselves, were said to be unreasonable and excessive. The principle of providing

a fair return on capital invested has been applied to the solution of the rate problem in Canada, as well as considering the cost of carriage and applying the well known practice of charging what the traffic will bear. The factors that obtain in determining rates in the United States have been made equally applicable to Canadian conditions. Length of haul, value of the commodity, water competition, competition between carriers, competition between markets and ports, the peculiar character of export and import business, the cost of service—all these in greater or less degree have influenced Canadian rate making. Moreover, it is equally evident that the desire to develop industry in certain territories, as well as to protect industry and traffic has had a considerable influence in determining the rates charged.

Professor MacGibbon, in a concluding chapter, makes a searching analysis of the legitimacy of the claim, now heard in so many quarters, that capital invested in railroads must be protected; and that rates must be regulated to that end. In the author's opinion this claim will receive, as it already has received, serious consideration by the Board of Commissioners and, in other directions, by Parliament itself. Whatever may have been the folly and extravagance of the past in excessive railroad construction, it is evident that investments cannot be placed in jeopardy without injuring the credit of the country.

W. W. SWANSON.

The University of Saskatchewan.

NEW BOOKS

CHERINGTON, P. T. *The port of Boston; its problems. A summary of of the situation.* (Boston: Chamber of Commerce. 1917. Pp. 35.)

DIXON, F. H. and PARMELEE, J. H. *War administration of the railways in the United States and Great Britain.* Carnegie Endowment for International Peace. (New York: Oxford Univ. Press. 1918. Pp. 155.)

MOORE, W. H. *Railway nationalisation and the average citizen.* (New York: Dutton. 1917. Pp. x, 181.)

RANDOLPH, C. F. *A brief on the law regarding the development and regulation of United States seaports.* (Washington: National Marine League. 1918. Pp. 33.)

ROPER, D. C. *The United States post office. Its past record, present condition, and potential relation to the new world era.* (New York: Funk & Wagnalls Co. 1917. Pp. xvii, 382. \$1.50.)

A popular and interesting account, in part historical but more

particularly devoted to a description of the different activities of our postal service. It includes an account of the workings of the post offices, the railway mail service, city delivery, parcel post, and postal banking. There is a nine-page chronology of events and an appendix explaining postal terms in general use. Illustrations also add to the interest of the volume.

SMITH, A. D. *The development of rates of postage. An historical and analytical study.* (London: Allen & Unwin. 1918. Pp. vi, 429. 16s.)

STONE, H. W. D. *The principles of urban traffic.* (London: C. Lockwood. 1917. 8s. 6d.)

THOMPSON, S. *Railway statistics of the United States of America for the year ending December 31, 1916, compared with the official reports for 1915 and recent statistics of foreign railways. Fourteenth year.* (Washington: Bureau of Railway News and Statistics. 1917. Pp. 124.)

Statement of expenses connected with car movements in Detroit terminals. (Detroit, Mich.: Ockford Prt. Co. 1917. Pp. 65.)

The traffic library. Interstate commerce law. Part 4. Practice and procedure of commission appendices. (Chicago: Am. Commerce Assoc. 1917. Pp. xv, 382.)

Trade, Commerce, and Commercial Crises

NEW BOOKS

HOYT, C. W. *The preparation of a marketing plan.* (New York: Hoyt's Service, Inc. 1917. Pp. 22.)

RÉMY, H. *La question des sucres et le ravitaillement de la France pendant le période 1914 à 1917.* (Paris: Tenin. 1917. 6 fr.)

Government control of trade. Report of the special sub-committee to the committee of the House of Commons. (London: Wyman. 1917. 6d.)

Review of the trade of India in 1916-17. (Calcutta: Dept. of Statistics of India. 1917. Pp. 81, vi.)

The world's sugar supply; its sources and distribution. (New York: National Bank of Commerce. 1917. Pp. 46.)

Accounting, Business Methods, Investments, and the Exchanges

NEW BOOKS

ALLEN, C. F. *Business law for engineers. I. Elements of law for engineers. II. Contract letting.* (New York: McGraw-Hill. 1917. Pp. 452. \$3.)

BABCOCK, G. D. *The Taylor system in Franklin management; application and results.* (New York: Engg. Mag. Co. 1917. Pp. xx, 245. \$3.)

- BARRETT, C. R. *Getting a good job; a practical solution of the problem of fitting the right man to the right place.* (Chicago: American Technical Society. 1917. Pp. 124.)
- BROWNE, S. *How to read the financial page.* (New York: Mag. of Wall St. 1917. Pp. 93. \$1.)
- FAIRCHILD, C. B. *Training for the street railway business.* (Philadelphia: Lippincott. 1918. \$1.25.)
- GARINO-CANINA, A. *Le speculazione a termine nelle borse dei prodotti agricoli e le recenti esperienze del commercio granario.* (Rome: Athenaeum. 1916. Pp. 41.)
- HALSEY, F. A. *The metric system in export trade; a report of an investigation of the practice of exporting manufacturers.* (New York: Am. Inst. of Weights and Measures. 1917. Pp. 69.)
- HARDING, E. *Corporate securities; a chart for use in the determination of the validity of bonds and trust deeds, equipment trust certificates, debentures and debenture agreements, and capital stock, and in the protection of the trustee of corporate mortgages. Showing instruments to be considered, facts to be ascertained, and law to be examined.* (Rochester, N. Y.: Lawyers Coöperative Pub. Co. 1917.)
- KASTOR, E. H. *Advertising.* (Chicago: LaSalle Exten. Univ. 1918. Pp. 318. \$2.50.)
- KELLER, G. *The Netherlands oversea trust. Its origin and work.* Translated from the Dutch by E. N. Cox. (London: Allen & Unwin. 1918. Pp. 44. 2s.)
- KERR, E. *The effect of wars and revolutions on government securities.* (New York: Imbrie & Co. 1917. Pp. 131.)
- McKILLOP, M. and A. D. *Efficiency methods.* (New York: Van Nostrand. 1917. Pp. 215. \$1.50.)
- PARKHURST, F. A. *Symbols.* (New York: Wiley. 1917. Pp. 171. \$2.)
- REED, J. C. *A selection of cases on commercial law.* (Baltimore, Md.: Rowe. 1917. Pp. xvii, 626.)
- RITTENHOUSE, C. F. *Exercises in accounting.* (New York: Association Press. 1917. Pp. 117.)
- RITTENHOUSE, C. F. and CLAPP, P. F. *Notes on accounting theory and practice.* (New York: Association Press. 1917. Pp. 85.)
- ROLLINS, M. *Money and investments.* Fourth edition. (Boston: Financial Pub. 1917. Pp. 494. \$2.50.)
- SCOVILL, H. T. *Farm accounting.* (New York: Appleton. 1918. Pp. xxi, 429. \$2.)
- WADDELL, J. A. L. *Engineering economics.* (Lawrence, Kans.: University of Kansas. 1917. Pp. 56.)

This is a series of lectures delivered before the School of Engi-

neering of the University of Kansas, during February, 1917. The view of economics that underlies the entire discussion is that of *profitableness of proposed construction*. The fundamental factors to be considered are present construction cost, future maintenance and operating expenses, and probable revenues. As to any particular alternative propositions, special emphasis is placed upon the first two factors—the relative cost of present construction, compared with future cost of maintenance and operation. The more important factors entering into the economy of construction are outlined briefly as to bridges, railroads, highways, water supply, and other important departments of engineering. The discussion should be very suggestive for economists.

JOHN BAUER.

WILSON, R. P. and CARPENTER, H. J. *Analysis of financial statements*. One of a series of lectures in a systematic course. (Chicago: LaSalle Exten. Univ. 1918. Pp. 38.)

A concrete and concise analysis of the various items comprising the financial statements of four typical industrial firms: a wholesale grocery, a packing company, a jobbing concern, and a cotton mill. The authors designate as necessary requisites to the interpretation of financial statements, first, an efficient knowledge of the principles of accounting and, further, a broader knowledge involving five general points—(1) line of business, (2) terms of purchase and sale, (3) local conditions, geographical or otherwise, (4) necessary capital for needs of business, and (5) ability and character of the management.

M.J.S.

WOLFF, M. *Accounting. 250 questions and answers, including problems and solutions, and 500 specimen questions. Information regarding examinations for bookkeeper and accountant positions in the New York City, New York State, New Jersey and United States services*. (New York: The author, Department of Water Supply, Gas and Electricity, City of New York. 1917. Pp. 109.)

Classification of accounts to be used in accounting to the United States for requisitioned vessels operated for government account. (Washington: Division of Operations, United States Shipping Board Emergency Fleet Corporation. 1918. Pp. 30.)

Course in business essentials. (New York: Business Training Corporation. 1917. 2 vols.)

Courses of study in corporation finance and investment. (New York: Doubleday Page & Co., for Investment Bankers Association of America. 1917. Pp. xiii, 170.)

A committee on education appointed by the board of governors of the Investment Bankers Association of America, and which has been at work for more than a year, has recently published the first results of its effort in this book. Two courses are presented, in the form of topical outlines, with references under each heading to

sources from which information on the subject may be found; they are intended to cover the general field in a systematic way. Other material will be announced on publication.

As its name implies, the association is a national organization of investment bankers, that is, of people who buy and sell government, municipal, and corporation securities "on their own account," as merchants, taking the risk of the transaction, as distinguished from brokers, who deal in securities as agents, and not on their own account. H.L.

Proceedings of the sixth annual convention of the Investment Bankers Association of America. (Chicago: F. R. Fenton, 111 West Monroe St. 1917. Pp. 297.)

Contains a report of the industrial securities committee in which there is a discussion of the issue of stock without par value; a paper on war savings in Great Britain, by B. P. Blackett; and a report of the taxation committee accompanied by a discussion on the excess profits tax.

Questions set for examinations, November, 1917. (New York: American Institute of Accountants. 1917. Pp. 14. 10c.)

Uniform contracts and cost accounting definitions and methods. Recommendations by interdepartmental conference consisting of delegates from the departments of War, Navy, and Commerce, and the Federal Trade Commission, and the Council of National Defense, July, 1917. (Washington: Supt. Docs. 1917. Pp. 45.)

Yearbook of the American Institute of Accountants, 1917. (New York: American Institute of Accountants. 1917. Pp. 272.)

Capital and Capitalistic Organization

NEW BOOKS

JENKS, J. W. and CLARK, W. E. *The trust problem.* Fourth edition, enlarged and completely revised. (New York: Doubleday, Page. 1917. Pp. xv, 499. \$2.)

The present edition of *Trust Problems*, in the revision of which Dr. Walter E. Clark has collaborated with Professor Jenks, is, according to the authors, "much more than a reprint of the old edition. It is practically a new book." The nature and order of the topics treated have been little changed; but the introductory chapter upon the Evolution of Business and the closing chapters upon legislation are new. Other chapters have been rewritten and brought up to date, without in most cases altering them so as to lose resemblance to the original work. The discussion of prices with the illuminating graphs has been amplified so as to include the more recent developments. The chapters upon legislation give a condensed account of the development of state and federal trust legislation and court decisions bearing upon combination. Nearly 200 pages are devoted to the appendices into which much new material is incorporated. Outline

histories of several representative trusts, the texts of state and federal anti-trust laws, and excerpts from foreign legislation relating to combinations are included.

The revision has been thoroughly done and in its present form *Trust Problems* should acquire renewed favor both as a source of information for the business man and general reader and as a text for college courses dealing with trusts.

H.R.T.

LIPMAN, F. L. *Creating capital. Money-making as an aim in business.* (Boston: Houghton Mifflin. 1918. Pp. 72. 75c.)

"Creating Capital," one of the series of papers delivered upon the Weinstock foundation at the University of California, is essentially a defense of money making as an aim in business. Though Mr. Lipman does not hold a brief for money making in all its forms, and recognizes the desirability of avoiding excess, he emphasizes the service to society of the few who have saved and accumulated capital. The economic reasoning as to the benefits of saving and accumulation of capital to the worker and to society in general is for the most part orthodox. Profits are regarded as the test of workableness and success of business efforts, the criterion of serviceability to mankind. The conclusion is that "thrift, the creation of capital for one's self and for the race, comes into conflict with no other proper aim in life, but on the contrary constitutes a fundamental duty to society, to the state, to one's family, to his own future, to his self respect."

H.R.T.

RAYMOND, W. C. *What is fair.* (Iowa City: The author, State University of Iowa. 1918. Pp. viii, 172. \$1.)

Chapter headings are General Relationships, Suitable Control, Rate Control, What is Fair Return, Valuation, Afterward.

SHONTS, T. P. *The old order changeth giving place to new.* (New York: The author, 165 Broadway. 1918. Pp. 30.)

How your dollar has been spent. Tenth annual report of Pasadena's municipal lighting works department, 1916-1917. (Pasadena, Calif.: Municipal Lighting Works Dept. 1918. Pp. 30.)

Labor and Labor Organizations

Trade Unionism in the United States. BY ROBERT FRANKLIN HOXIE. (New York: D. Appleton and Company. 1917. Pp. xxxvii, 426. \$2.50.)

Any estimate of this book must necessarily take account of the fact that the material has been brought together by the editors from the late Professor Hoxie's notes, lectures, and published articles. Inevitably there are parts that are in bare outline only, portions that lack somewhat in unity, and other sections where the editors have rearranged material in the interests of a book unity. The body of the notes is a "growth of several years" and a large

portion is "the product of the last two or three" years. Although the "material had been prepared by him without thought of publication in this form," there is an underlying unity that makes the book well worth presentation in this form.

Professor Hoxie's cautious method of expression and wariness at drawing unwarranted conclusions are everywhere in evidence. At the outset it is emphasized as a "basic hypothesis" that "there is no such thing as unionism, either in the sense of an abstract unity or a concrete, organic, and consistent whole which can be crowded within the confines of a narrow definition or judged sweepingly."

Two "leading propositions" are advanced as "working hypotheses for the interpretation of facts"; (1) "unionism is not a unified, consistent unity"; (2) "what is called unionism is in reality the manifold expression of a series of distinct and essentially contradictory types and varieties" (p. 53).

This conception of unions leads the author to his characteristic point of view in analysis. Function, and not structure, is the guide. The "essence of unionism" is "a group interpretation of the social situation in which the workers find themselves, and a remedial program in the form of aims, policies and methods." A union is a special case of group psychology; "a social interpretation and remedial program held by a group of wageworkers" (pp. 60, 61). "A functional social group may be defined as a body of individuals holding a common viewpoint in regard to one or a number of vital social matters and in this respect at variance with the viewpoints of other members of society" (p. 355).

In the analysis of functions the author finds that "there are seemingly four of these distinct types": business; uplift; revolutionary; and predatory unions. Two variants of the revolutionary type are socialistic and quasi-anarchistic unions; and the predatory type has as variants hold-up and guerrilla unions. A footnote adds a "possible fifth type," dependent unions. Structural types, named "in what hypothetically may perhaps be considered their natural sequence of development," are craft; trades; compound craft; quasi-industrial; industrial; and labor unions. Since "the real unionism is functional" (the structural form being "altogether secondary and dependent"), it follows that "the orthodox causal and historical interpretation of unionism must be abandoned or thoroughly revised."

Lest the reader expect too rigid a conformity to functional

type, the author gives warning of "apparent qualifications of these conditions" and asserts that they are possible "without destroying the practical reality and significance of distinct functional types."

Here is a fresh emphasis of viewpoint for the student of unionism and one that will certainly yield beneficial results. It is not easy to judge of its entire adequacy, since the book is, after all, but an outline, and the reviewer hesitates, because of this fact, to differ too broadly with the author. It is, however, conclusive that no comprehensive study of unions can be made without the aid that the idea of functional unionism will afford.

The Industrial Workers of the World are regarded by Professor Hoxie as "more an object of pathetic interest than fear." Of revolutionary unionism, however, "we shall see more rather than less. It is one of the big problems of our time."

Employers' associations appear in an interesting rôle. Their methods are based on assumptions that the author vigorously denounces as false and devoid of "high moral basis"; without sanction "in modern social scientific thought"; "based on outworn philosophy and false assumption of fact" (pp. 199, 200). Yet in the course of their militant activity these associations have "greatly modified their character and viewpoint." They have learned both the importance and the deep significance of team work. They have been "driven" into all sorts of welfare work. Unionism seems to be developing a group consciousness and, at present, to be stopping there. It is of especial interest to note the author's opinion that the employers' association movement in its fight on unionism is becoming "modified so that it is not likely to push its advantage to the utmost. It holds out promise of a social betterment movement far removed from the old classical, individualistic, *laissez faire* position." Being forced into welfare work, the result has been "a strong tendency to educate and socialize these individualists, to force them to consider constructive measures, to broaden their social outlook, to modify their militancy." "They found, finally, that if they were to succeed they must develop all sorts of spiritual and federative relationships to offset the union form and strength."

All judgments and conclusions suggested in this book must be interpreted as resting upon Professor Hoxie's social philosophy. This is suggested in different passages in the book, but is not elaborated. "Social rights exist only as confirmed by society. Their historical basis is in the power of the individual or the class. . . . If we seek a rational basis, it lies in expediency.

Society can curtail it whenever it sees fit, and in allowing workers to do so and so, it gives a right." "The only basis of social rights acceptable to modern thinking is social welfare and social will." "We do not know enough about the nature of society and the laws of developmental ends to determine what is ultimately for the best. We are thrown back, therefore, for the sources and sanctions of rights to the social will. Society alone can give social rights; society alone can take them away. What society allows are rights." "Practically social rights are the rules of the game of the dominant class, but social rights thus granted have no necessary moral sanction."

GEORGE G. GROAT.

University of Vermont.

Wage-Payment Legislation in the United States. By ROBERT GILDERSLEEVE PATERSON. Bulletin of the United States Bureau of Labor Statistics, Whole Number 229. Labor Laws of the United States Series, No. 12. December, 1917. (Washington: Superintendent of Documents. 1918. Pp. 186.)

The headings under which the author has collected and classified the statutes affecting the payment of wages in the United States show the extent of his research. He studies rate, period and mode of payment of wages; restrictions on the employment contract, that is, statutes authorizing payment of wages to deceased and discharged employees; deductions from, refusal to pay, reduction of and place of payment of wages; protection of mine labor in regard to the weighing of coal in mines and screening; and the repayment of wages advanced to employees. In addition to this exhaustive collection of statutes is an examination of a number of cases on the constitutionality of wage payment legislation to determine how far the courts have stood in the way of progressive labor legislation under the influence of the individualistic theory of the freedom of contract.

The author introduces his study with a brief comment on the labor contract in English and American law and on the development of the theory of individualism, to the existing influence of which, in the minds of the judges, he ascribes much of the backwardness of our labor law. And he closes the book with chapters on the growing recognition of the importance of the social ideal in our modern industrial civilization as against the laissez faire doctrine of the early nineteenth century.

The author notes with approval the more liberal attitude of the courts toward the increasing bulk of wage payment legislation and questions uncontrolled freedom of contract as a constitutional right. Perhaps the best comment on the difficulty which he has with this question is Judge Day's remark, quoted in another connection on page 142: "This court [the United States Supreme Court] has so often affirmed the right of the state . . . to place reasonable restrictions . . . on the freedom of contract that we need only to refer to some of the cases in passing."

The reviewer thinks that the author overstates the unwillingness of the courts to consider facts or economic conditions in determining the reasonableness and so the constitutionality of cases affecting labor relations (p. 30). His own quotations, while in many cases amply supporting his just criticism, show very frequently a wholly different point of view. (See, for example, pp. 56, 60, 72, 107, 111.) Particularly is this true of the United States Supreme Court in recent years, as he himself admits on page 162. The cases cited in the footnote on page 176 are so convincing a proof of the correctness of the author's appreciation of the labor law position of the Supreme Court that they might well have been given greater prominence. Since the Supreme Court has become so comparatively liberal, it is of greater importance that the statute of 1914 authorizing the court to review cases, decided by state courts against the validity of a state law claimed to be repugnant to the Constitution of the United States, be emphasized; and the error in this regard on page 26 should be corrected in the text rather than in a note. In general the reviewer agrees "that the outlook for wage payment legislation . . . cannot be considered discouraging. We have still the possibility of reactionary decisions . . . but with the development of a public opinion more favorable to the real rights of man as against the rights of property, even such failure by the courts to realize the demands of our industrial life will become less frequent if they do not disappear."

The author's constitutional theory is not always easy to understand. In the section on "organization of the courts" (p. 25), he does not seem to realize that it is not the courts but the system of separate state governments, each with its own constitution and legislature as well as its own judiciary, which is at the bottom of our "diversity of law." The United States courts are bound to follow, not lead, each state court in interpreting the state constitution and it is the different spirit in the population of the several

states which in the last analysis is to blame for this diversity. It is not the fault or the merit of the courts that in Massachusetts and Illinois there are stringent child labor laws, while in the South there is very limited protection for children. With the comparative ease of amendment of state constitutions, it is the people of the state rather than the courts who must bear the principal blame for permitting a state constitution to stand in the way of liberal labor legislation.

The implication on page 144 that an American constitution is "a frame of government" is rather surprising in a writer who has been discussing the fourteenth amendment and other provisions which deal with the reserved rights of persons and property. He should also have noted that the United States decision in the Paul case went off on a question that had nothing to do with the particular point decided by the Indiana court in the Schuler case (p. 122). As the Indiana court, in fact, relied on the United States decision, distinguished and upheld in the Paul case, it is scarcely just to say that the Supreme Court decisions have no weight with the Indiana tribunal.

The author would have made his work more valuable had he distinguished more sharply between cases holding wage-payment legislation unconstitutional as unreasonable classification and those in which the freedom of contract or inviolability of property and personal rights was made the basis of the decision. The very useful chronological tables of cases at the end of each chapter would be far more valuable if he were more careful in distinguishing the grounds of the decisions for these and other reasons. For instance, a California decision, re Crane, tabulated as holding a wage statute unconstitutional (p. 93), in fact condemns the statute as authorizing imprisonment for debt (p. 91). This is not an "objection on a broad theoretical ground" not allowing for "the changed facts of industry," which he attributes to all decisions holding statutes unconstitutional. See also *State v. Ferguson* (p. 116), which held a Louisiana act unconstitutional owing to a defective title (p. 114). Such cases should have been distinguished from those holding wage statutes bad on account of principle, particularly in view of the broad statements with which the author prefaces his tables.

The author is mistaken in his reading of *Cumberland Glass Manufacturing Co. v. State*, 58 N. J. 224. The court did not enforce the act but dismissed a complaint under it against the

agent of the corporation, because the act did not apply to the agent, and expressly reserved the question of constitutionality (p. 113).

Every student of labor legislation will be grateful to the author for his diligence in collecting and classifying the material presented and it is to be hoped that all the various phases of labor legislation will be so treated and the treatment kept up to date.

J. P. CHAMBERLAIN.

NEW BOOKS

BAGGE, G. *Arbetslönens Reglering genom Sammanslutningar. Akademisk Afhandling.* (Stockholm: A.B. Nordiska. 1917. Pp. xvi, 483. 5 kr.)

BEMAN, L. T. *Selected articles on the compulsory arbitration and compulsory investigation of industrial disputes.* Third edition, revised and enlarged. Debaters' handbook series. (White Plains, N. Y.: Wilson. 1918. Pp. 71, 223. \$1.25.)

BURRITT, A. W., DENNISON, H. S., and others. *Profit sharing, its principles and practice. A collaboration.* (New York: Harper. 1918. Pp. x, 328. \$2.50.)

HENDERSON, A. *The aims of labour.* (London: Headley Bros. 1918. 1s.)

HOBSON, S. G. *Guild principles in war and peace.* (London: Bell. 1918. 2s. 6d.)

Among other topics discusses unemployment after the war.

JOLY, H. *La question du travail des femmes; ses perspectives nouvelles.* (Paris: Dunot & Pinat. 1918. Pp. 18. 1.50 fr.)

ODENCRANTZ, L. C. and POTTER, Z. L. *Industrial conditions in Springfield, Illinois. A survey by the committee on women's work and the department of surveys and exhibits, Russell Sage Foundation.* Springfield survey, no. 8. (New York: Department of Surveys and Exhibits, Russell Sage Foundation. 1916. Pp. 173. 25c.)

The study was made with the purpose of picturing "industry in Springfield from the angle of social welfare," and it has three distinct values: it portrays the Springfield citizen in industry; it sketches life in its relation to industry in an American city of 50,000 inhabitants; and it commends itself to every progressive American city as the thing to do to insure advance.

Assuming well established standards as to hours of labor, child labor, wages, and protective measures, it proceeds to test conditions in Springfield, to point the deviations from the normal standards, and to make recommendations for betterment. The report supplies the citizen and the employer with background information which he needs to have, it tells the story of things as they are in Springfield today, and it instructs the city as to what it ought to do and how to

go to work to do it. Its demands are, however, those to be made in many communities—a reorganized industrial board and more effective enforcement of labor laws, a forceful workmen's compensation and health and unemployment insurance, sane standards for the working day and wages, and labor exchanges for adults and for youths.

SUSAN M. KINGSBURY.

RAMSAY, A. *Terms of industrial peace*. (London: Constable. 1917. Pp. 156. 3s.)

Discusses the increasing prices of labor, arbitration, and limits of profits.

WEBB, B. *Health of working girls*. (London: Blackie & Son. 1918. Pp. 103. 2s. 6d.)

The American labor year book 1917-18. Edited by ALEXANDER TRACHTENBURG. (New York: Rand School of Social Science. 1918. Pp. 384. \$1.25 or 60c.)

The second labor year book issued by the Rand School should be read and kept for reference by all who are interested in the labor situation. A mass of important and timely material relating to the labor, coöperative, and socialist movements in this and other countries, is presented in this small volume. The chapter on Labor and War is perhaps the most significant one. Herein is presented the attitude of the American Socialist party. Unfortunately the editor has not seen fit to give space to the views of the socialist group which supports the war program of our government. Mr. Hillquit's ideas and the majority report adopted by the St. Louis (1917) convention are presented; but Mr. Spargo's views and the minority report are omitted. The declaration of the American Federation of Labor is, however, printed.

The chapter entitled, The Socialist Movement in the United States, is a detailed account of the present status of the socialist movement in this country. The International Socialist, Labor and Coöperative Movements clearly pictures the remarkable growth in the coöperative movement since the opening of the war. The titles of the remaining chapters sufficiently indicate their nature: The Labor Movement in the United States; Labor and the Law; Social and Economic Conditions.

FRANK T. CARLTON.

The employment exchanges (advisory committee) regulations, 1917. Statutory rules and orders, 1917. (London: Wyman. 1917. 1d.)

Investigations of workers' food and suggestions as to dietary. Memorandum no. 19. (London: Health of Munition Workers Committee. 1917. 2s.)

Labor problems of war time. War service bulletin no. 5. (New York: Joint Commission on Social Service of the Protestant Episcopal Church, 281 Fourth Ave. 1918. 10c.)

Occupational hazards at blast-furnace plants and accident prevention. Bull. 140. (Washington: Bureau of Mines. 1917. Pp. 155.)

Report of proceedings at forty-ninth annual trade-union congress, at Blackpool, September, 1917. (London: King. 1917. 2s.)

Money, Prices, Credit, and Banking

Monetary System of Mexico. Proposed Reforms. By E. W. KEMMERER. (Mexico City and New York: Comisión de Reorganización Administrativa y Financiera, Henry Bruère, Secretary. 1917. Pp. 94.)

In the United States the rise in the price of silver which was so pronounced in 1917, especially during the months of August and September when it rose from 78 cents to \$1.08½ per ounce, attracted the attention of but few people aside from the limited number who were directly interested.

Our silver dollars are more valuable as money than as bullion until the price of silver reaches \$1.29 per ounce and our subsidiary silver coins even longer. In Mexico, however, a different situation prevails. The bullion par of the peso fuerte is 63.4 cents per ounce and that of silver fractional currency is 77.7 cents per ounce. With silver even as low as 85 or 86 cents an ounce, the price that has prevailed for the last few months, the Mexican silver coins are more valuable as bullion than for monetary uses. Since March, 1916, this has been true of the peso fuerte and since June, 1917, of the fractional coins.

Professor Kemmerer was asked by the Comisión de Reorganización Administrativa y Financiera to suggest a way of meeting the problem; and in October, 1917, when he submitted his report the pesos had disappeared from circulation and the fractional silver coins were seriously threatened. Two possible actions are discussed: (1) to increase the weight of the unit of value above its present 75 centigrams of pure gold; and (2) to recoin the existing silver coins, reducing their pure silver content.

The first proposal would involve recoinage of the gold coins with considerable expense and no seigniorage profits to the government, alter the level of prices and wages, compel a readjustment of debts, probably meet with considerable popular criticism, and furnish a unit too valuable for Mexican needs. The second plan is accordingly advocated, the recommendation being for a silver peso containing 15 grams of fine silver, with fractional coins of the same fineness (.800) but with only 13.5 grams of pure silver to the peso. The proposed new pesos would have a bullion par of \$1.035 and the fractional coins \$1.14⅞, a margin of safety considerably above

the present one and in the case of the peso about 6 per cent over the Indian rupee.

The leading requirements for the maintenance of the gold standard are set forth, particular attention being given to regulations needed for adjusting the supply of fiduciary coins to trade needs and the maintenance of an adequate gold reserve. It is to this last problem that most of the author's attention is given. Its functions, *i.e.*, (a) to secure an automatic adjustment of the currency supply to the demands of trade and (b) to create and maintain public confidence in the fiduciary currency are carefully explained. A minimum reserve of 40 per cent is recommended for the outset with perhaps 30 per cent later, this to be held in national gold coins, standard gold bars, and foreign gold coin with no more than perhaps 10 per cent in silver, preferably coin at the outset. Part of this fund might be kept in New York or London. The fund is to be accumulated from various sources among which are seigniorage profits in coining silver and a loan fund of P 20,000,000.

An introduction by Rafael Nieto, a member of the commission, states that the recent decline in the price of silver to about 85 cents per ounce has made unnecessary the recoinage of the silver currency but that if the price should again rise to a point sufficiently high to encourage "the exportation of fractional silver, recoinage will be imperative."

The report is lucid throughout, and is an excellent illustration not only of the expert knowledge of its author and his thorough familiarity with the problem he is treating but of the attractive form in which a public report on a subject usually considered uninteresting may be presented. Such material is vastly superior for the uses of a teacher to the ordinary textbook treatment. The only regret felt by a reader is that our whole money and currency problem is as yet unsolved. A world whose welfare is so much at the mercy of a slight fluctuation in the price of a single commodity has much to learn and much to do. Even such remedies as Professor Kemmerer proposes would be a protection only against a rather moderate rise in silver prices in the future.

E. M. PATTERSON.

University of Pennsylvania.

NEW BOOKS

BAUER, S. *Untersuchungen über die Lebenskosten in der Schweiz.* (Munich: Verein für Sozialpolitik. 1917. Pp. xxiii, 303.)

DESCHAMPS, H. *Précis d'un cours de banque*. (Paris: Dunod & Pinat. 1918. 5.50 fr.)

EDGEWORTH, F. Y. *Currency and finance in time of war*. (New York: Oxford Univ. Press. 1917. Pp. 48. 40c.)

ESCHER, F. *Foreign exchange explained*. (New York: Macmillan. 1917. Pp. xii, 180, xxxviii. \$1.25.)

This book contains in a more fully elaborated form much of the material found in the author's *Elements of Foreign Exchange*, published first in 1910—a book which has had a deservedly wide use as a college textbook. The present book, however, contains considerable material not found in the earlier book, as for example two chapters dealing with dollar exchange, a chapter on the silver exchanges, and a fuller and much more satisfactory treatment of the relations between the foreign exchanges and the money market. Appendices contain illustrative problems, and the elementary facts concerning the coinage systems of leading countries. There is no treatment of the important foreign exchange subject, the gold-exchange standard, and little attention is given to international exchange on our own continent. Canada is barely mentioned and Mexico is ignored. Both of these exchanges are of interest to American students.

The reviewer discovered a few inaccuracies but none of them are serious. For example, on pages 25 and 26 the author says: "If, for example, for every pound sterling of exchange created by the import of merchandise there is created a demand for two pounds sterling by reason of merchandise exports, it is very evident that the rate of exchange is likely to go up" etc. Here the author has incorrectly interchanged exports and imports. Obviously merchandise imports create a demand for sterling exchange and merchandise exports create the bills. Exchange rates go down when exports exceed imports, not up. The discussion of the theory of gold movements on page 73—a theory which the author says is "held far more strongly, by the way, among economists than among practical bankers"—is not satisfactory. The theory discussed is not adequately stated, and should have been more fully treated or ignored entirely.

Unlike most books on foreign exchange this one is not burdened with needlessly complicated mathematical illustrations that confuse rather than illustrate. The author's illustrations are effective because they are largely hypothetical and can therefore be made simple and be freed from extraneous details that encumber many so-called "practical illustrations taken from actual business." The style is simple and direct. Mr. Escher has written a book that will make a strong appeal to the serious minded student, and will prove to be a valuable textbook on the subject of foreign exchange for college classes in money and banking.

E. W. KEMMERER.

FOGG, L. A. *Banker's securities against advances*. (New York: Pitman. 1917. Pp. 109. \$2.25.)

- GARDNER, P. *A history of ancient coinage, 700-300 B.C.* (London: Milford. 18s.)
- HARRIS, B. D. *Trade acceptance method in war financing.* (New York: National City Bank. 1918. Pp. 14.)
- HOLLAND-MARTIN, R. *A comparative return of trade wages cheques paid by banks in England and Wales during the first nine months of war, 1914-15.* (London: Blades, East and Blades. 1917. Pp. 43.)
- MACGREGOR, T. D. *The new business department. Its organization and operation in a modern bank.* (New York: Bankers Pub. Co. 1917. Pp. 94.)
Describes briefly methods of advertising and campaigns for new business.
- PIERSON, L. E. *The trade acceptance nationally launched.* (New York: Irving National Bank. 1917. Pp. 25.)
- SPALDING, W. F. *Eastern exchange, currency, and finance.* (New York: Pitman. 1917. Pp. 364. \$4.50.)
- Advertising and service.* The Shaw banking series. (New York: A. W. Shaw & Co. 1918. Pp. 312, xxii.)
Designed to assist banking institutions in enlarging their business. Contains chapters on planning advertising campaigns, preparation of mailing lists and letters, and special methods for securing accounts of women and children, foreigners, and farmers. Also the operation of thrift clubs is explained.
- First annual report of the Scottish War Savings Committee.* (London: Wyman. 1917. 2d.)
- Monetary systems of principal countries of the world, 1916.* Treasury Department document 2799. (Washington: Supt. Docs. 1917. Pp. 75. 10c.)
- Practical questions and answers on the trade acceptance method.* (New York: Irving National Bank. 1918. Pp. 21.)

Public Finance, Taxation, and Tariff

- Income Tax Procedure, 1918.* BY ROBERT H. MONTGOMERY.
(New York: The Ronald Press Company. 1918. Pp. x, 800. \$4.00.)

The federal income tax and its companion the excess profits tax involve many ideas and lines of thought with which few among the American people are familiar. This unfamiliarity with the underlying ideas as to the nature of income and of income taxation causes much of the confusion which the taxpayer finds in his efforts to understand the new law. The reason for this ignorance is not far to seek. As a people we habitually think of a man's wealth in terms of capital (property) and not in terms of income. We have

had much practical experience in valuing property, little in rating income. That Congress and its advisors were equally unfamiliar with these ideas goes almost without saying. That a special effort was made to enlighten the ignorance of the taxpayer in the writing of the law is not yet credited. But a sympathetic reading of the law does reveal a commendable effort to explain these unfamiliar ideas. Yet in his impatience with the unfamiliar the taxpayer is over prone to criticise Congress, the tax law, and its administration. "The law is a mess," he says, "why didn't Congress make it simpler." It seldom occurs to him that his own ignorance and density may be at least one among the causes of his difficulties.

The eagerness of the taxpayers for light on the income tax has afforded an opportunity which has been seized upon by many writers. There are offered to the public many books and pamphlets on this subject. Among them are digests and tabular statements of the law circulated by the banks and by others; there are primers for the layman, now mostly superseded by the government primer; there are treatises for lawyers and handbooks for accountants. The changes in the laws made in 1916 and in 1917 have occasioned many new editions and supplements to these publications.

Among the best of the handbooks is the one before us. It is virtually a second edition of the same author's *Income Tax Procedure, 1917*. It is essentially a manual for the accountant.

Besides being a guidebook to the law the work has a thesis of its own. Interwoven with the practical instructions runs an argument for a different type of income tax. This proposed tax would be based on the accountant's concept of income as a fund accruing during a given period of time. The author takes every opportunity to criticise our basis of realized money income, whenever that basis fails to coincide with his own. He also argues strongly for heavier taxation of unearned incomes after the model of the British law. The tax on personal earnings under the excess profits tax affords him an excellent opportunity for this argument. In the opinion of the reviewer the author fails in this connection to give proper consideration to the very important fact that our state and local taxes fall very heavily on the sources of unearned income and, in fact, joined with the federal income tax work the very result for which he argues. This, however, does not excuse the extra taxation of earned income under the excess profits tax.

The author works his way systematically through the law fol-

lowing in the main the outlines of the law itself. He brings all the related matters together and shows clearly the interrelations of the different parts of the law. He has collated all the Treasury department rulings down to the date of the publication (January, 1918) and has put each in its proper place in connection with the part of the law to which it relates. A supplement bringing the rulings down to a later date still is promised to all purchasers of the book. To facilitate reference, so that a person looking up a single point only may find in one place all that bears on that point the author does not hesitate to repeat matters discussed in other places as well. The result is that the book is extremely useful for reference purposes. To that end it has a copious index of some 46 pages. The index is good, though occasionally the reviewer has not found the references he has sought under the captions that seemed most natural to him. Thus for example there is nothing under "exchange of property for stock," nor under "crops," "crop shares," nor is the last-mentioned to be found under "rent" or "landowner."

The work has been done with remarkable accuracy. Of out and out errors the reviewer has found but one. It is an error to say that a college professor may deduct the cost of books bought (p. 246). This statement as to accuracy excludes, of course, points on which there may be a difference of opinion. It also excludes matters slightly outside of the tax law on which the reviewer's experience is different from that of the author. Thus it is a little astonishing to be told that "the uniform practice is to charge off costs of organization as an expense of the business and such items should be an allowable deduction" (pp. 19, 20) from the year's income. That this is the practice is so far from being true according to the reviewer's experience that it seems that all conclusions based upon it must fall to the ground. Again the author insists on page 96) that in an "exchange of one security for another" "it is impossible that there should be a gain to each of two parties." An economist would ask why such an exchange took place at all if it were not to the advantage of both parties.

Of those almost unavoidable half-truths, where the writer, with his mind fixed on one point in one set of circumstances, forgets a possibly different application in some other connection, there are very few. One example of this is on page 60 where "living quarters" furnished "in addition to salary" are discussed. It is not made clear that these must be "in consideration of services." But

the omission is not serious, for the principle is made clear a few pages farther on. Again in the discussion of the rulings on exchange of one piece of property for another (pp. 86 to 101), the author has his mind centered on stock dealings and consequently his explanations are not so clear as are the Treasury rulings. (See Regulations 33, Revised, Articles 111, 116, 117, and 118.) There are so many passages in the law itself, and more in the rulings, couched in broad language, but predicated on one set of circumstances only that it would be asking too much to expect an author to think of all possible other bearings of his statements.

As has been stated, the general point of view is that of an accountant. It is that, too, of a very militant accountant, of one who lets it be known that he has been fighting hard to instil certain pet principles of accounting. Thus he urges that the Treasury department should so rule as to encourage inventories at low valuations. He says (p. 72), "Concerns which for many years have consistently valued their inventories at low prices should be permitted to continue to do so. Such practice is sound and conservative and deserves the support of the government." The reviewer is not convinced, for to him it appears that the truth in an inventory is more important than conservatism. In other places the author argues that the rulings do not allow a sufficient amount for depreciation. This runs all through chapter V. These rulings he says do not agree "with the opinion of the accounting profession" (p. 353). Still more illustrative of the accountant's point of view is his discussion of bad debts (ch. XIV). Here he urges that reserves for bad debts should be set up in advance and that such reserves should be allowed by the department as deductions, whenever books are kept on the accrual basis. It will be recalled that the law says that bad debts may be deducted when "actually ascertained to be worthless and charged off within the year." The author's argument is that it is proper to set up such reserves "to meet losses which have not fully materialized," but which "based upon experience will surely occur" (p. 337). Yet a loss that "has not fully materialized" no matter how sure to occur cannot be said to be "actually ascertained." Considering it further, would it be safe to encourage people whose books are not kept by skilled accountants to set up such reserves? In other places he urges that farmers should be induced by the income tax administration to keep books and set up inventories (p. 107). It is surprising to find that the British income tax practice under schedule B is cited as sustaining this point

when in fact it was devised for the very reason that the farmer did not keep books.

As stated above, the author has a very decided opinion as to what an income tax ought to be, and as this differs materially from that which ours is he has frequent occasions to quarrel with the law. These are his apparent delight for he rarely misses one. It should not be assumed, however, that this leads him to misguide the reader as to the provisions of the law, for those are always correctly stated. But much that he says is written in such a way as to tempt to litigation. He writes many an argument that the lawyer will be glad to incorporate into his brief in some case involving tax-dodging. In all of this he depends very much on British rulings. In the opinion of the reviewer he has not in this connection given due weight to the important fact that the British law, more particularly in schedules A and B and in parts of D, imposes a "property and income tax" and that the taxable income is an assessed income. The assessments under schedule A are not revised as a whole every year.

The presentation and exposition of the excess profits tax are excellent, and are the more remarkable in that they were written before all the rulings were available. One not over important slip has been noticed. That is on pages 616 and 617, in discussing that section of the law which defines as a "single business" "all the trades and businesses in which" a corporation "is engaged." Here the author wanders off into a discussion of the proper relations between corporations and their subsidiaries which while interesting and perhaps important is not relevant.

One fails to find in the book any discussion of the perplexing problems which confront the farmer under the income tax. In this respect the rulings of the Treasury are not adequate either. The author takes the "cityman's" view that the farmer is entitled to no consideration because he is not taxed on the value of the crops which he and his family consume (p. 104). Nothing whatever is said about the injustice of making the farmer pay on his expenses when for any reason he carries his crop over to the year after that in which it was raised.

The book is frequently marred by an impatient expression of criticism, both of the law and of the administration. The criticisms are hostile and expressed in language unrestrained and undignified. Some such expressions are: "The debates over the Federal Revenue Bill in the House of Representatives and the Senate

would reflect no credit on any preparatory school." "Why should tax-payers be lenient with legislators who will not take the trouble to inform themselves on a question which has been of the utmost importance for five years?" "The law is a mess." "Those ignorant of accounts (as is evidently the case with about 99 per cent of Congress) will never be able to improve on the measure." (All from the preface, p. iv.) "I propose to criticise all the rulings which I think are not in accord with the letter and intention of the law—and I shall continue these criticisms until the courts pass upon the points at issue." (Preface, p. vi.) Sometimes he sarcastically pokes fun at the department (p. 340 and pp. 34, 35) and sometimes is very unfair, as in the case cited above in connection with reserves for bad debts. Class prejudice shows in the following: "But it [100 per cent taxation of all liquid profits] does appeal to 'Wall Street,' where there is more patriotism and more voluntary man service than in any other part of the United States" (pp. 24, 25).

CARL C. PLEHN.

University of California.

Excess Condemnation. By ROBERT EUGENE CUSHMAN. National Municipal League Series. (New York: D. Appleton and Company. 1917. Pp. x, 323. \$2.00.)

It is strange and surprising that the present volume is the first one to deal with this very important subject, and it shows how far behind the development of the fact we often fall in the development of the various social sciences. Mr. Cushman comments on the widespread ignorance of the subject in these words:

There are several reasons why it is still perfectly respectable to be completely ignorant about excess condemnation even though it is almost one hundred years old. In the first place, the policy of government to which this not very illuminating title is applied is indigenous to European countries. Only in Great Britain, France and Belgium has it passed beyond the experimental stage. Then, too, the name "excess condemnation" is a fairly recent American term. The European, therefore, while he may be familiar with the policy itself, may not recognize it by its American name. And in the United States, not only are the term and the policy which it denotes of recent origin but also the attempts to employ excess condemnation, or even to legalize it, have been confined to relatively few places. Outside these places there is little interest in the scheme and little knowledge regarding it, save upon the part of a few city officials and city planning experts. It is only very slowly that the term "excess condemnation" is coming to convey even a vague idea to the layman.

Excess condemnation is defined in these words: "Excess condemnation may be said to be the policy, on the part of the state or city, of taking by right of eminent domain more property than is actually necessary for the creation of a public improvement, and of subsequently selling or leasing this surplus."

While the policy has not been treated heretofore in separate works, it has been discussed in other connections, especially in works on city planning, because no one can deal either scientifically or practically with this increasingly important subject without coming upon the necessity of using excess condemnation as a means of making our cities what we wish them to be as convenient and beautiful centers of population. Needed changes and improvements cannot otherwise be carried out at all or only with excessive cost.

Mr. Cushman discusses the various possible uses of excess condemnation as well as points of view from which the subject may be approached and in a concluding chapter has a valuable treatment of *The Constitutionality of Excess Condemnation*.

The book is carefully written and therefore accurate. The only fault the present writer could find with it is that it does not seem to show a grasp of the subject in its broader aspects as connected with the general philosophical purposes of condemnation of property as a means of rearranging by lawful means and with just compensation property rights in order to bring them into harmony with the ever changing concrete situation. Thus viewed condemnation makes peaceful evolution a possibility and is one of the most important subjects in the whole field of the social sciences. Moreover, the author has failed to see that in land purchases such as have taken place widely in Europe and particularly in Ireland we have what is really excess condemnation on a tremendously large scale and on a scale which is destined to assume what, as compared with our American use of it, may be called gigantic.

RICHARD T. ELY.

University of Wisconsin.

Canadian Provincial Budget Systems and Financial History. By H. G. VILLARD. (New York: Bureau of Municipal Research. 1917. Pp. 60. 50 cents.)

This report on the Canadian provincial budgetary system includes a survey of the financial history of the several provinces as well as an outline of budgetary practice and problems. Because of

the limited scope of the work Mr. Villard has been unable to do more than present a mere outline of the financial history and fiscal administrative procedure of the Canadian provinces. Because of limits of space, also, some of the chapters—notably chapters 2 and 4—deal only with the mechanics in the situation. Stimulating in criticism, penetrating in analysis, the report suffers because of its very brevity. It remains, after all, only a sketch of the theoretical and practical aspects of Canadian provincial budgetary problems, for a full discussion of which we must wait for Mr. Villard's *Canadian Budgetary System*, which he has written in collaboration with Professor Willoughby.

Mr. Villard severely criticises the budgetary practices of the various provincial governments, notably the tendency to shift items from current to capital account, and vice versa, in order to present a favorable financial report to the legislature and to the public.

As is pointed out, capital expenditures are usually ignored in the budget statements presented to the provincial legislatures; and this markedly weakens legislative control of the public purse. Manifestly, through this practice a complete statement of expenditures for the ensuing fiscal year is not placed in the hands of members; and they are therefore unable to approve or condemn various undertakings until moneys have been expended and the work practically finished. This is dangerous practice, and unfortunately has become the usual procedure of provincial administrations in Canada during recent years.

The fixed and controllable expenditures, corresponding to the standing and annual appropriations of the United States, do not always come completely before the provincial legislatures. It is a common practice to enact a statute providing for certain public works and for the raising of funds to finance them, and then leave complete administration and control in the hands of the government. The legislatures, it is true, vote the funds, but they make no appropriations as far as new public undertakings are concerned. As a result, information bearing on the progress of public works is difficult to obtain; and is, as a matter of fact, usually presented only when the legislature is asked to make a further appropriation for the completion of the undertaking. Simply stated, it has become the usual practice to exclude all statutory expenditures from the estimated expenditures, as shown in the annual budget, there being no vote on these items by the committee on ways and means.

Mr. Villard condemns the practice of spending public funds without securing parliamentary approval. In recent years the provincial governments have been accustomed to spend large amounts of capital on public works, on current account, and for patriotic purposes under warrants. These warrants are issued by the Lieutenant-Governor-in-Council, at the request of the head of any provincial administrative department, or at the request of the whole cabinet upon its decision that such expenditures are "for the public good." Since the outbreak of war all the provinces have made heavy expenditures of this nature, without the consent of the representatives of the people. Mr. Villard justly states that the practice is dangerous, and constitutes a real threat to democratic government.

An illuminating discussion, all too brief, is given of the provincial audit systems. As is pointed out by the writer, there are two general practices in Canada with respect to the auditing of public accounts—past-payment auditing, and the certification of payments before they are made. Some provincial auditors are of the opinion that the former is the better procedure, inasmuch as it permits of a more searching examination of accounts, and has resulted, in many instances, in bringing to light malpractices and worse. Provincial auditors are secure in their tenure of office; but an offended administration may curtail their powers—as was recently done in the case of the Ontario Hydro-electric Commission—by limiting their jurisdiction.

In chapter 7 the author states that the Dominion government has so encroached upon the original field of activity of the provinces that the only public improvements now undertaken by the local governments are the construction and betterment of roads and bridges and the erection of public buildings for provincial purposes. This is hardly correct; provincial works on a large scale being undertaken by Ontario and some of the other provinces, in other directions. Ontario, for example, has built the Temiscaming and Northern Ontario Railway, and has developed the largest hydro-electric system on the continent; Alberta, in large measure, has financed the Alberta and Great Waterways railway system, while British Columbia has recently been involved in many large enterprises. Moreover, in the reviewer's opinion, Mr. Villard paints too dark a picture of partisan usages and practices in the Canadian provinces. True, the provincial administrations have not been free from corruption; but the recent housecleaning in

Manitoba and elsewhere proves that the Canadian people will not give countenance to graft and corruption. It is significant that the federal government has recently announced the abolition of the patronage system as far as the affairs of the Dominion are concerned.

Mr. Villard has given his readers a clear and incisive review of Canadian budgetary practice. As already stated, however, it is merely an outline, and suffers therefore from the defects of sketchy treatment.

W. W. SWANSON.

The University of Saskatchewan.

NEW BOOKS

CHRYSTIE, T. L. *The law and practice of inheritance taxation in the state of New York, 1916 and 1917.* (New York: Banks Law Pub. Co. 1917. Pp. 40.)

COMBAT, F.-J. *Finances publiques: emprunts et placements pendant la guerre.* (Paris: Berger-Levrault. 1918.)

CONLIN, J. A. *Income and federal tax reports.* 1918 edition. (New York: Prentice-Hall. 1918. Pp. 712. \$3.)

ESSARY, J. F. *Your war taxes; an interpretation of the new law with complete text.* (New York: Moffat, Yard. 1917. Pp. 178. \$1.)

Mr. Essary gives a brief popular summary of the tax legislation of the federal government since the outbreak of the European war, appending to it the text of the war revenue act of October 3, 1917. It is from its brevity necessarily very general in character, but is on the whole accurate. On page 62 the date of the Underwood act of 1913 is given as October 6 instead of October 3, and on the following page the act of September 8, 1916, is spoken of as an act of 1915. The failure to note the exemption of \$50,000 among the deductions allowed from the gross estate (pp. 51-52) makes the statement of inheritance tax rates on page 55 somewhat confusing; nor would it be inferred from the account of the excess profits tax that persons in receipt of salaries in excess of \$6,000 were subject to the tax.

H. B. G.

FILLEBROWN, C. B. *Sir John Macdonnell and the land question.* (Boston: 77 Summer St. 1918. Pp. 29. 5c.)

HENDERSON, E. H. *Henderson's war tax guide, act of October 3, 1917, with notes and commentaries.* (Chicago: Federal Law Service. 1918. Pp. 192. \$2.50.)

HOLMES, G. E. *Federal income tax, 1917.* (New York: Corporation Trust Co. 1918.)

JÈZE, G. *Les finances de guerre de l'Angleterre.* Vol. IV. *La pro-*

gression des dépenses publiques. (Paris: Giard & Brière. 1918. 4 fr.)

JUDSON, F. N. *A treatise on the power of taxation, state and federal, in the United States.* Second edition. (St. Louis: F. H. Thomas Law Bk. Co. 1917. Pp. xxx, 1144.)

MARION, M. *Les lois du maximum et la taxation des salaires sous la Révolution.* (Paris: Giard & Brière. 1918. 1 fr.)

MOHUN, B. *The income tax law, the war income tax law, the war excess profits tax law, the capital-stock tax law, the estate tax law, and munition manufacturer's tax law.* (Washington: The author. 1917. Pp. xii, 104. \$1.)

MORGE, M. *Précis élémentaire de législation financière.* (Paris: Librairie du Recueil Sirey. 1918.)

MYERS, W. F. *Income, estate, transfer and stamp taxes under federal and state acts.* (Albany: Aiken Bk. Co. 1917. Pp. 41.)

NELSON, G. N. *Income tax law and accounting.* Second edition. (New York: Macmillan Co. 1918. Pp. xxiv, 364. \$2.50.)

Mr. Nelson's book deals with the income and excess profits taxes and is an explanation and commentary on these laws intended to assist the taxpayer in making out his returns and keeping his accounts. There is a table of definitions of terms and a table of cases, together with a full index. The appendix contains the income tax law of September 8, 1916, amended by the acts of March 3, and October 3, 1917; the war revenue act of October 3, 1917; the corporation stock tax law of September 8, 1916 and Treasury decisions on this act; the corporation excise act of August 5, 1909; the corporation tax provisions of the act of October 3, 1913; and the New York income tax law. The author has apparently done his work carefully and methodically and has furnished a useful reference volume.

H.B.G.

SCOTT, J. J. *The income tax and other federal taxes.* (San Francisco: The author, 612 Clunie Bldg. 1917. Pp. 374. \$2.)

TALMAGE, M. P. *Manual on the methods of assessment of real estate in New York City.* (New York: Oppenheimer. 1917. Pp. 39.)

Digest of 1917 income tax laws of the United States of America as applied to non-resident alien individuals and corporations. (New York: National City Co. 1917. Pp. 21.)

Financial mobilization for war. Papers presented at a joint conference of the Western Economic Society and the City Club of Chicago, June 21 and 22, 1917. (Chicago: Univ. Chicago Press. 1918. Pp. 157. 50c. and postage, weight 11 oz.)

Contains the following: Our fiscal policy, by Edwin R. A. Seligman; Taxation versus bond issues for financing the war, by E. Dana Durand; Industrial conscription, by Harold G. Moulton; Lessons

from our past. The financial management of the Civil War, by Ernest L. Bogart; Lessons from English taxation in the present war, by Carl C. Plehn; Taxation and business, by Lucius Teter; The income and excess-profits taxes, by Thomas S. Adams; Bond issues and the money market, by William A. Scott; War finance and the federal reserve banks, A. C. Miller.

National expenditure. First and second reports of select committee. (London: King. 1917. 5d.)

Primary days and election days as holidays. An instance of governmental absurdity and waste. (Chicago: Chicago Bureau of Public Efficiency. 1917. Pp. 11.)

War excess profits tax. (Chicago: Halsey, Stuart & Co. 1918.)

Population and Migration

NEW BOOKS

JENKS, J. W. and LAUCK, W. J. *The immigration problem. A study of immigration conditions and needs.* Fourth edition, revised and enlarged. (New York: Funk & Wagnalls. 1917. Pp. xviii, 605. \$1.75.)

The present edition of this book shows an increase of 109 pages over the first edition published in 1912. It includes the text of the immigration act passed over the veto of President Wilson in 1917; and a new chapter by W. W. Husband, formerly secretary of the Immigration Commission, containing an analysis of that act. The last edition covered the census of 1910, and the present edition adds later figures from the annual immigration reports. An appendix gives in some detail the plan of Sydney L. Gulick for putting oriental immigration on the same footing as other immigration, and another contains the text of the California Land Ownership Act. Nineteen additional tables have been added to the appendices since the first edition; but, in the main, the book is still a summary of the work of the Immigration Commission. A brief bibliography, of books only, is given; in which it is noticeable that the only three references on Asiatic immigration are all on the side of the Asiatics, and that no mention is made of books, like Montaville Flowers' *Japanese Conquest of American Opinion*, which hold the opposite view.

What I have said about a certain lack of exactness in former editions (AMERICAN ECONOMIC REVIEW, vol. II, p. 675) applies to this one also. For example, the sources of most tables are not given, and in many cases (*e.g.*, pp. 112, 305) the period covered by the tables is not stated; thus compelling a search through the many volumes of the reports of the Immigration Commission to get the exact reference and date. On pages 383 and 385, the percentages for the various races of the illiteracy of those over 14 years of age in proportion to the total immigration of those races are given, with an explanation that this is not satisfactory because of the variation in the numbers below that age. It would have been easy to give the

proportion of illiterates in the immigration over 14 years of age.

Appendix A (p. 408) is evidently taken unchanged from a government pamphlet, and refers to other portions of the pamphlet which are not given in the book at all. No table of the total immigration since 1820 is given except in the form of a chart, which does not supply the exact figures; and no mention is made in that connection of the fact that the basis of the chart was changed in 1905 from total alien arrivals to "immigrant aliens."

As a useful statistical handbook, especially with reference to economic conditions, this work will continue to fill an important place; but for much historical material, and the adequate discussion of many problems, readers must turn to some of the other books mentioned in the bibliography.

PRESCOTT F. HALL.

KAMMERER, P. G. *The unmarried mother*. (Boston: Little, Brown. 1918. Pp. 337. \$3.)

KNIBBS, G. H. *The mathematical theory of population, of its character and fluctuations, and of the factors which influence them*. (Melbourne: Commonwealth Statistician. 1917. Pp. xvi, 466.)

MARCHANT, J. *Birth-rate and empire*. (London: King. 1918. 7s. 6d.)

WYNNE, S. W. and GUILFOY, W. H. *Occupation and mortality. Their for 1914*. Reprint No. 400 from the Public Health Reports, June 8, 1917. (Washington: U. S. Public Health Service. 1917. Pp. 20.)

(Washington: U. S. Public Health Service. 1917. Pp. 20.)

Studies in the mortalities of birth, infancy, and childhood. (London: King. 1918. 1s. 6d.)

Social Problems and Reforms

Industrial Experiences of Trade-School Girls in Massachusetts.

An investigation by the Department of Research of the Women's Educational and Industrial Union of Boston. Studies in the Economic Relations of Women, Vol. IX. Prepared under the direction of MAY ALLINSON with the advice and criticism of SUSAN M. KINGSBURY. Published by the United States Bureau of Labor Statistics as Bulletin Whole No. 215; Women in Industry Series No. 10. (Boston: Women's Educational and Industrial Union. 1917. Pp. 275. 80 cents.)

Difficulties which must be overcome in carrying out our new program of national vocational education are revealed by this painstaking investigation. The report may be regarded as a critique of our first attempt to supply special training for female industrial workers since the Boston Trade School for Girls was founded in 1904, but two years later than a similar pioneer girls'

* trade school in New York City. Experience gained by previous studies, made in a community where both industry and vocational education are more fully developed than in other sections of the United States, assisted the directors in their efforts to make a concrete statistical presentation of the intricate questions which must be answered before a program for vocational education can be formulated.

What is to be the scope of the trade training provided for women? Will the United States adopt the conservative New England traditions which have been embodied in the first American trade schools for women, or shall we profit by the remarkable new developments now taking place in the United Kingdom, and hold open for women all opportunities for which they are physically fitted? The Boston, Worcester, and Cambridge trade schools studied in this report are strongholds of conservatism, as over 98 per cent of their graduates have been prepared to earn their living in the needle trades. Nearly two thirds were trained in custom dressmaking, yet as Dr. Allinson has shown both in this study and in her previous report on *Dressmaking as a Trade for Women*, the opportunities for the employment of young girls in this trade are rapidly disappearing. The outlook for the fifth of the trade-school graduates trained as milliners is but little better, since this is an overcrowded trade characterized by extreme irregularity of employment.

The immediate and future economic advantages of the trade-school training are shown by the many elaborate and carefully analyzed statistical tables giving initial wages and earnings after varying amounts of experience of both trade-school girls and young women trained in their places of employment. When the earning capacity of women who entered the trade by these two routes was compared, it was found that: "In every experience group the trade-school dressmakers show a larger proportion earning \$8 a week or over. . . . On the other hand, in every experience group a slightly larger proportion of the trade trained than of the trade-school girls earn \$10 or over per week" (p. 132).

The relative lack of popularity and effectiveness of the trade-school courses preparing girls for power machine operating and trade cooking reveal two more of the knotty problems which will trouble those who will be responsible for investing the millions which we are planning to devote to industrial education. First, we do not know how to teach new trades; and, second, the output of

our trade schools cannot be utilized in the existing industrial organization. The somewhat ineffectual manual training courses of the past have made possible good analyses of the processes of hand sewing and carpentry, so that they can be presented to the young in well graded steps, but the pedagogical analyses of the newer trades is a task for the future. Prejudices against factory work, sensitiveness under the rough treatment of old-time foremen, and youthful inability to bear responsibilities required by the present industrial organization, are all factors to be reckoned with by those who plan trade-school courses. It seems probable that our efforts to promote national industrial efficiency must lead ultimately to greater public control and supervision of all industries utilizing the labor of minors.

Data helpful in answering numerous other vital questions are presented in the 275 pages of text and statistical tables of the report. No one interested in vocational education can afford to neglect the condensed chapter giving the summary and conclusions of the investigation, and specialists will be interested in the careful analyses of school courses and trade processes. The report is an exceptionally valuable addition to the studies which will enable us to guide intelligently our rapidly developing system of vocational education.

LUCILE EAVES.

NEW BOOKS

BREWSTER, E. T. *Vocational guidance for the professions.* (Chicago: Rand, McNally. 1917. Pp. 211. \$1.)

BROWN, T. I., editor. *Economic coöperation among the negroes of Georgia. Report of a social study made by Atlanta University, with the proceedings of the twenty-second annual conference for the study of negro problems, held at Atlanta University, on Monday, May 28, 1917.* (Atlanta: The University. 1917. Pp. 56. 50c.)

CARTER, H. *The control of the drink trade. A contribution to national efficiency, 1915-1917.* (New York: Longmans. 1918. Pp. xvi, 323. \$2.50.)

CLOPPER, E. N. *Child welfare in Oklahoma.* (New York: National Child Labor Committee. 1917. Pp. 285. 75c.)

Considerable progress is being made in the codification of children's laws. England has the code of laws for children, and Norway has recently passed legislation of a radical nature in the form of the children's rights laws. In our own country but four states, Ohio, Missouri, Minnesota, and New Hampshire, have seen the necessity of standardizing the laws governing the protection of chil-

dren and to this end have passed legislation on the basis of reports prepared by commissions especially appointed to study the laws. But in none of these states (although in Missouri the social organizations attempted a joint effort for coöperation) was the legislative action preceded by sufficient study of existing conditions; and the resulting "code" was either unsatisfactory or, as in Ohio, was mutilated in its enactment through lack of coöperation between the different groups of social workers.

The volume on *Child Welfare in Oklahoma* is therefore something quite new. It has been published by the National Child Labor Committee after a state-wide survey, at the request of the University of Oklahoma, and reports the existing conditions surrounding children throughout the state. As Dr. Clopper says in his introduction, it "is submitted in the hope that it may be found useful in some degree at least by those who may in the future undertake the task of preparing a children's code for Oklahoma." The field covered in the investigation includes the subjects of public health, recreation, education, child labor, agriculture, juvenile courts and probation, institutional care of children, home finding, poor relief, parentage and property rights, and general protection. The final chapter deals with the equally important subject of administration.

Among the most interesting of the individual findings are those concerning agriculture and the rural tenant problem. Oklahoma is largely a rural state, and of all the farms 50.8 per cent are rented. Large corporations, non-resident owners who conduct their business through a real estate agent, business and professional men living in the small towns, and Indian owners who lease their holdings through speculators to the farmer—these are the classes of landholders who have reduced the tenant to his present hopeless and helpless state. The renters form a migratory class, leasing their farms frequently for no longer than a year at a time, constantly moving in the hope of bettering their condition, commonly in debt on account of the lack of storage facilities and the necessity of selling the crop in the fall when prices are low and of obtaining credit to carry them through the year.

This is new material on the subject of land tenure, and it is interesting from more than one point of view. But the really interesting feature of the report is that it proves, intrinsically, the fact that there can not be merely one point of view concerning anything that concerns child welfare. In Oklahoma the chief cause of non-attendance at school in the rural districts is found to be farm work, but the labor of children is rendered economically imperative by the condition of the tenant farmer who must avail himself of every pair of hands in the family to avoid starvation. Improvement in child labor and school attendance laws cannot outstrip the solution of the tenant farmer problem. Public health, delinquency, the institutional care of children, are all interdependent fields of work, bound up with the questions of recreation, mothers' pensions, poor relief, and so on. A valuable work has been performed in relating these problems and

in clearing the way for the further and more effective standardization of child welfare laws.

RUTH McINTIRE.

ELMER, M. C. *Technique of social surveys*. (Lawrence, Kans.: World Co. 1917. Pp. 93.)

Dr. Elmer's book is an attempt to set forth a broad subject in small compass. It shows what are the types of survey, how the enterprise is to be organized and what the sources of information are; then, at greater length, it undertakes to indicate what precise questions ought to be asked regarding each of the main topics to be investigated in any comprehensive survey. To novices these minute directions must be very helpful, but they imply such a degree of possible standardization, that only a superficial diagnosis—the peril, is it not, of all surveys?—is likely to result.

R. F. FOERSTER.

HOTCHKISS, W. E. *Higher education and business standards*. (Boston: Houghton Mifflin. 1918. Pp. 109. \$1.)

MOORE, E. *Maternity and infant care in a rural county in Kansas*. Rural child welfare series, no. 1. Bureau publication no. 26. (Washington: U. S. Dept. of Labor, Children's Bureau. 1917. Pp. 50.)

PATRIC, G. *A study of the housing and social conditions in the Ann Street district of Los Angeles, California*. (Los Angeles: Univ. Southern California. 1918. Pp. 28.)

PEIRCE, P. S. *Social surveys of three rural townships in Iowa*. University of Iowa monographs. Studies in the social sciences, vol. V, no. 2. (Iowa City: The University. 1917. Pp. 88.)

Professor Peirce has summarized the results of three rural surveys in southern Iowa. He has so far eliminated sheer detail as to leave on the reader's mind a rather definite impression of the types of population, and of the economic, religious, educational, and other conditions of the region.

R.F.F.

PICKETT, E. D. and others, editors. *Cyclopædia of temperance, prohibition, and public morals*. 1917 edition. (New York: Methodist Bk. Concern. 1917. Pp. 406. 50c.)

ROBINSON, E. *Vocational education*. (White Plains, N. Y.: Wilson. 1918. Pp. 66. 35c.)

Presents in compact form leading points of view in the discussion of vocational education. Gives special attention to the teaching in the public schools of industrial and commercial subjects and of household arts.

SMAIL, J. C. *Training and employment in the printing trades*. (London: King. 1918. 1s.)

STEWART, A. *Social problems. Outlines and references*. (Boston: Allyn & Bacon. 1917. Pp. vi, 233.)

A group of lecture outlines intended for high school students.

Each topic is subdivided and in most cases some reference is suggested for further information. It is not clear what guiding principle was used in selecting the various topics since they neither cover the field nor fully develop any particular phase of sociology. Part I concludes with a bibliography of 236 books thought suitable for a social problems library. Part II enumerates the leading subjects classified under Social Problems and gives page references from various sociological works to material dealing with the respective topics.

G.B.M.

WEAVER, E. W. *Vocational guidance, with a system of vocational analysis*. (Philadelphia: Uplift Pub. Co. 1917. Pp. 16. 50c.)

Annual report of the Federal Board for Vocational Education, 1917. (Washington: Supt. Docs. 1917. Pp. 31.)

Directory of social work for Baltimore and Maryland. Fourth edition. (New York: Survey. 1918. Pp. 456. \$1.10.)

A discussion of methods of teaching English to adult foreigners, with a report on Los Angeles County. (San Francisco: State Commission of Immigration and Housing. 1917. Pp. 40.)

Food supply in families of limited means. A study of present facts of the food problem in Boston families by six welfare agencies. (Boston: League for Preventive Work, 44 Bromfield St. 1918. 10c.)

The health of the people. A new national policy. (London: Argus Prtg. Co. 1917. Pp. 63.)

Lawrence social survey. Report of F. W. Blackmar and E. W. Burgess to the Lawrence Social Survey Committee. (Lawrence, Kans.: The Committee. 1917. Pp. 127.)

What gives to such a study as this its chief interest is the circumstance that it was coöperatively undertaken and carried through. The enthusiasm of its managers and the publicity given to its results have already so far awakened a public conscience that several municipal reforms have been instituted. Under the special guidance of Professor Blackmar of the University of Kansas detailed reports more or less statistical, were secured on a dozen different topics, administrative, industrial, and social; these have not generally more than a local interest.

R.F.F.

Malnutrition among school children. A study by the public health committee of the New York Academy of Medicine. Reprinted from the *Medical Record*, Feb. 23, 1918. (New York: William Wood & Co. 1918. Pp. 28.)

Materials for the household. Circular of the Bureau of Standards, no. 70. (Washington: Supt. Docs. 1917. Pp. 259.)

Describes the more common materials, other than foods and drugs, used in the home. While written primarily for the household, it may incidentally interest dealers in materials for the household and teachers of home economics.

Proceedings of the national conference of social work at the forty-eighth annual session held in Pittsburgh, Pa., June 6-13, 1917. (Chicago: 315 Plymouth Court. 1918. Pp. 675.)

Papers are grouped under the following general headings: social problems of the war, family and community, health, children, public charities, mental hygiene, community problems, social insurance, corrections, and rural social problems. There is a detailed index which makes the volume serviceable for reference.

Report of Royal Commission on housing of industrial population of Scotland, rural and urban. (London: Wyman. 1917. Pp. xviii, 459.)

Report on the physical welfare of mothers and children. Four volumes. (Liverpool: Carnegie United Kingdom Trust. 1917.)

Third annual report of the City Planning Board, for the year ending January 31, 1917. (Boston: The Board. 1917. Pp. 49.)

Urban and rural development. Report of conference held at Winnipeg, May 28-30, 1917. (Ottawa: Commission of Conservation. 1917. Pp. 98.)

Insurance and Pensions

Principles Governing Retirement of Public Employees. By LEWIS MERIAM. The Institute for Government Research. Publications on Principles of Administration. (New York: D. Appleton and Company. 1918. Pp. xxix, 477. \$2.75.)

Attention has frequently been called to the fact that we have in the English language no general treatise on the fundamental questions involved in the problem of pensioning state employees. We already have a large and growing literature on the financial and actuarial aspects of this subject, but we have no thorough discussion of the economic, social, administrative, and financial questions which ought to be considered before any sound plan of pensioning public employees can be adopted. To meet this need, Mr. Lewis Meriam has written a volume which fairly earns the title of a genuine contribution to our knowledge in this field. Mr. Meriam's experience as a federal official, his earlier statistical study of the composition of the federal staff, and his more recent connection with unofficial investigating bodies, have given him both personal acquaintance with the question and a detached point of view of the problem he treats. Throughout the discussion an effort has been made to present the arguments for and against the alternate lines of action in controverted points without any attempt to indicate the ideal solution.

The objects sought by the government through the establishment of a retirement system are: the elimination of the superannuated, the removal of those whose efficiency has been impaired by accident or disease, the improvement of the morale of the rest of the staff, the retention of the best employees, and the attraction to the service of a high grade of men. The three parties to the question, the government as an employer, the employees, and the public all have a close interest in the matter and the rights of the three demand careful consideration in the adoption of any system of retirement. That some fair plan of providing for the employee who has lost his efficiency because of advancing age and long service is necessary is the almost universal opinion of those who have had experience in public administration. How such a system should be financed and the classes of benefits to be provided make up the greater part of the problems discussed.

The vexed question of contributory and non-contributory systems is treated in a clear and convincing manner. For the new entrant, the question of benefits is a matter of compensation; a higher grade of men, who would not accept a position for the salary alone, would accept it for the salary plus the benefits; and in the long run the burden of the system is placed on the employee. A sound system of retirement should therefore be constructed primarily with the needs of future entrants in view while making some temporary arrangement for those who are to be retired at the time of the adoption of the plan. In drafting the system of benefits, the general rule is to meet the needs of the employee: an adequate scheme would provide for (a) superannuation, (b) ordinary disability occurring before the employee has met the requirements for superannuation, (c) withdrawal from service, (d) death in active service, and (e) death after retirement under certain conditions. Where there is a distinct element of hazard in the service, as in the case of firemen or policemen, special benefits should be provided for (a) disability due to the actual performance of duty, (b) death in active service due to the same cause, and (c) death after retirement when due to cause (a).

In discussing the various details of benefits, Mr. Meriam has drawn freely on the experience of the British retirement system, which for the first time is presented to American readers in well digested form.

The book closes with a useful bibliography, though the method

of stating titles of reports leaves much to be desired. The excellent arrangement of the discussion with chapter headings, summaries, and conclusions calls for special commendation.

HENRY J. HARRIS.

NEW BOOKS

JONES, F. R., editor. *Texts of the workmen's compensation laws of the states and territories of the United States, with digests.* 41 pamphlets. (New York: Workmen's Compensation Publicity Bureau, 80 Maiden Lane. 1917. 25c. each.)

JONES, F. R., editor. *Digest of workmen's compensation laws in the United States and territories, with annotations.* Fifth edition, revised to December 1, 1917. (New York: Workmen's Compensation Bureau. 1917.)

KEATE, H. *Guide to marine insurance.* (London: Layton. 1917.)

LEMMON, W. S. *Fire insurance rating systems.* (New York: Eastern Union, 84 Williams St.)

MAXWELL, H. Z. *Digest of decisions under the Pennsylvania workmen's compensation act of 1915.* (Harrisburg: The author. 1917. Pp. 125.)

OTIS, S. L. *Tables of comparative benefits of various compensation laws.* (New York: Spectator Co. 1917.)

Fees and taxes charged New York insurance companies by insurance departments of other states for 1918. (Albany: State Ins. Dept. 1917. Pp. 53.)

Memorandum explanatory of the provisions of the national health insurance bill. (London: Wyman. 1917. 2d.)

National insurance acts. Handbook for the use of approved societies. Irish edition. (Dublin: National Health Insurance Committee. 1917. Pp. 317. 1s. 9d.)

Report of war pensions, etc. Statutory Committee for 1916. (London: Wyman. 1917. Pp. 124. 1s. 3d.)

Third annual report, 1916-17, national health insurance, Medical Research Committee. (London: Wyman. 1918. 6d.)

Pauperism, Charities, and Relief Measures

NEW BOOKS

HURRY, J. B. *Poverty and its vicious circles.* (London: J. & A. Churchill; Philadelphia: P. Blakiston's Son & Co. 1917. Pp. 180. \$2.)

In a popular and rather striking way is presented the fact that poverty produces conditions and forms of misery which in turn tend

to aggravate poverty. A number of illustrative diagrams increase the effectiveness of the presentation. Otherwise the book contains but little that is new or original in character. The author would break the circles through the use of legislation, voluntary organization, and individual effort. G.B.M.

MANTON, H. *The case for the guardians of the poor.* (London: Poor-Law Publications, 27-29 Fumival St. 1918. Pp. 59.)

MILLER, L. D. *The New York charities directory; a reference book of social service in or available for Greater New York.* Twenty-seventh edition. (New York: Charity Organization Society. 1918.)

Socialism and Co-operative Enterprises

NEW BOOKS

LARKIN, W. P. *Marxian socialism.* (London: King. 1918. 6d.)

MITCHELL, H. *Profit-sharing and producers' coöperation in Canada.* Bull. no. 26. (Kingston, Ont.: Dept. Hist., Queen's Univ. 1918.)

BEASE, M. *Jean Jaurès, socialist and humanitarian.* (New York: Huebsch. 1917. Pp. 157.)

VANDERVELDE, E. *Le socialisme contre l'Etat problèmes d'après guerre.* (Paris: Berger-Levrault. 1918. 3.60 fr.)

WATON, H. *The fetishism of liberty.* (New York: Marxian Philosophical Society. 1918. Pp. 101.)

Report on government ownership of public utility service undertakings, prepared by the committee on municipal ownership of the City Club of Los Angeles, California. (Los Angeles: City Club. 1917. Pp. 38. 10c.)

The German socialists. Do they stand for a democratic peace? Will they revolt? (Greenwich, Conn.: William E. Walling. 1918. Pp. 15.)

Seven articles which have been published in fifty American newspapers.

Statistics and Its Methods

Statistics. By WILLIAM B. BAILEY and JOHN CUMMINGS. National Social Science Series. (Chicago: A. C. McClurg and Company. 1917. Pp. 147. 60 cents.)

An Introduction to Statistical Methods. By HORACE SECRIST. (New York: The Macmillan Company. 1917. Pp. xxi, 482. \$2.00.)

The need for a satisfactory elementary manual of statistical methods has long been manifest. The publication of two such volumes within a single month consequently is of interest. For-

Unfortunately the two are of such different character that there would seem to be a place for each. Unfortunately the two will not fill their respective places with equal satisfaction.

The small (16 mo.) volume by Drs. Bailey and Cummings is designed particularly for "social workers [who] must keep records and prepare reports," and for those persons who "find it necessary to gather primary statistical facts, plan tables, tabulate the raw material and present it to the public in such shape that it can be used for intelligent analysis and comparison." Given this underlying purpose, it is natural that the book should deal less extensively with the methods of critical analysis than with the problems of collection, tabulation, and initial presentation of statistical data. With this plan there can be no quarrel: for a host of workers must have felt the want of a satisfactory manual dealing with the collection and organization of statistical material.

A number of the chapters of this little book are admirable attempts to fill this want so far as is possible within small compass. There are several excellent compact summaries. It would be difficult to find a more satisfactory brief statement of the *desiderata* of good statistical schedules. Nowhere is there a more helpful discussion of the purposes of schedule editing. The chapter on tabulation is replete with suggestions which are sure to prove useful to the novice in statistical inquiry. It would be fortunate indeed if the remainder of the book maintained the standard set by the treatment of these topics.

As a matter of fact, the book "runs down" badly. In the later chapters the fatal blunder is made of ignoring the conditions imposed upon the exposition by the diminutive size of the volume. Nothing was to be gained by sections upon the geometric mean, deviation from the average, and stereograms, or even by a whole chapter upon correlation, when lack of space absolutely forbade any adequate explanation of these statistical concepts. It is difficult to see why Drs. Bailey and Cummings should have attempted to place in the hands of the novice all the arms of the statistical arsenal. There are occasions when directions should take the form of, "Do not handle." In the wisdom of their experience the authors should have contented themselves with thorough explanations of a few of the simpler instruments of statistical analysis. In neglecting to discriminate and to eliminate, they have made their treatment of analysis as distinct a failure as their exposition of collection and tabulation is a success.

Professor Secrist's book is of an entirely different order. Intended as a "textbook for college students [and] a manual for statisticians and business executives," it deals more comprehensively with all phases of statistical method. After an introductory chapter on the meaning and application of statistics, the details of the process of assembling and collecting statistical data are explained. Chapters follow on Tabular, Diagrammatic, and Graphic Presentation; and finally upon Averages, Index Numbers, Dispersion, and Correlation.

There need be no hesitation in stating that Professor Secrist has written the best-balanced book in English on statistical methods as related to economic investigation. No important steps in the collection, tabulation, presentation, and critical analysis of statistical data are omitted. Not only are the proportions of the book excellent, but there is throughout that unfailing reiteration of the difficulties and the limitations of statistical method which should mark every text in this field. Frequent introductory and summary paragraphs keep the student continuously in touch with the development of the subject. A brief list of well chosen references at the close of each chapter adds to the usefulness of the volume. In general, the book has been carefully constructed.

The weaknesses of the work are twofold: (1) an occasional unfortunate pedantry or ponderousness in style; (2) defective distinctions between different phases of statistical method. The former defect perhaps will not prove serious. The explanation of statistical tables as "flat surfaces 'with breadth not disproportionately small in comparison with length'" (p. 117) does not serve to illumine the subject; and the discussion of the "tendencies of beginners" (pp. 4-6) is so exhaustive as to be wearisome. But the book contains so much effective concrete illustrative material that such occasional lapses as the above may well be pardoned.

The other weakness is more serious; for Professor Secrist's classifications determine the course of his exposition. Thus, in developing the subject of presentation, Professor Secrist divides his material into two chapters, one entitled Diagrammatic Presentation, the other Graphic Presentation. The attempted distinction between curves (or "graphs") and other graphic forms has little to commend it. It is counter to the established usage. Furthermore, it leads to unfortunate divisions of material. To separate the treatment of the frequency histogram and the frequency polygon on the ground that one is a "diagram" and the other a

"graph" obviously would be unfortunate. Again, time data may be represented by either bars or curves; now one is preferable, now the other. Professor Secrist would separate the description of the two forms. It is to be hoped that this practice of his will not be generally adopted.

More fundamentally Professor Secrist fails in his endeavor to classify the different cases in statistical analysis. Thus statistical tables are classified as: (a) historical; (b) "cross-section"; (c) frequency. Elsewhere the three essential distinctions are spoken of as: (a) time; (b) "condition"; (c) space. The matter is not clear. Nor does it play a large enough part in the exposition.

Statistical method serves its purpose primarily in the comparison and analysis of significant variations. These variations are of three sorts: (a) variations immediately related to time; (b) variations immediately related to space; (c) variations immediately related to neither time nor space. These three fundamental cases condition all statistical analysis, and individually necessitate adjustments and modifications in the instruments of analysis. The significance of an average of a time series is essentially different from that of a frequency distribution. The coefficient of correlation which will truthfully measure the connection between two variables indifferent to time and space, will actually misrepresent the connection or lack of connection between two variables in time unless modified in some such way as by the "method of differences." Statistical analysis has not recognized these facts sufficiently. Their importance cannot be exaggerated. In the opinion of the reviewer, no thoroughly satisfactory text will be written on statistical methods until the explanation of the various statistical devices—tables, graphs, averages, coefficients—is subordinated to the development of these three fundamental cases in analysis, rather than the reverse as is now the uniform practice. Professor Secrist has moved in the right direction; he has not gone far enough.

But there is no occasion for belittling Professor Secrist's accomplishment. His illustrative chapters on wage statistics and index numbers are admirable; his discussion of correlation is in refreshing contrast to the typical discussion of that subject. His book as a whole is by far the best American text in its field. It is certain to prove of great service to all students of statistical methods as applied to economics.

EDMUND E. DAY.

Harvard University.

Forecasting the Yield and Price of Cotton. By HENRY LUDWELL MOORE. (New York: The Macmillan Company. 1917. Pp. vi, 173. \$2.50.)

In this the most convincing of his books Professor Moore gives us another illustration of the fruitful application of the Pearsonian coefficient of correlation to economic problems. He states that his chief object "has been to make a contribution to economic science by showing that the changes in the great basic industry of the South which dominate the whole economic life of the Cotton Belt are so much a matter of routine that, with a high degree of accuracy, they admit of being predicted from natural causes" (p. 10). Without question he has succeeded. In particular he has shown (1) that forecasts of the yield of cotton made from the current reports of the Weather Bureau as to rainfall and temperature in the states of the Cotton Belt are more accurate than the forecasts of the Department of Agriculture and (2) that from the prospective magnitude of the crop more precise forecasts of the price per pound of cotton can be made than the Department of Agriculture now makes in forecasting the yield of the crop.

The author's conclusions, just stated, are reached after a careful analysis involving the application of the theory of correlation. That application has been effectively made. However, the author has a mistaken confidence in the *variate difference correlation method*. He refers to it (p. 130) as "the method that is freest from theoretical objections when applied to such limited series as we are compelled to work with." In applying it Professor Moore finds "a remarkable agreement between the correlations of ratios and the correlations of first differences and of second differences" (p. 131). Karl Pearson, under whose direction the method was developed, recommends that one go to sixth or higher differences before reaching a conclusion. My own investigations indicate that the *variate difference method* is particularly *unreliable* for short series. (See *Quarterly Publications of the American Statistical Association*, June, 1917.)

In a number of instances computations are carried out to needless refinement. For instance in table 6 (p. 70) the squares and products of items are carried out to two decimal places when units are sufficient. Again in table 32 (p. 144) the percentage changes in the price and production of cotton lint are given to hundredths of a per cent. Thus the average price per pound of upland cotton in 1904 was 8.7 cents and in 1905 it was 10.9 cents or a change of

+ 2.2 cents. Professor Moore gives the percentage change of 1905 over the preceding year as + 25.29 per cent. This is certainly spurious accuracy. Further, why should correlation coefficients for twenty pairs of items be given to thousandths when the probable error would affect the hundredths place? There appears to be no reason for stating coefficients of correlation to three places in economics other than that such is the usage in biology. Certainly, our conclusions are not based on the digit in the thousandths place. Where the original data are admittedly rough, as they are in this case, such refinements in computations are excessive. They create suspicion of rather than confidence in the results. In the present case these excesses of computation are not the basis of false conclusions.

Forecasting the Yield and Price of Cotton is an admirable piece of work. Professor Moore has demonstrated his thesis.

WARREN M. PERSONS.

Washington, D. C.

NEW BOOKS

ELBERTON, W. P. *Frequency curves and correlation. Addendum, with diagram, and errata.* (London: Layton. 1917. Pp. 22. 1s. 6d.)

RUGG, H. O. *Statistical methods applied to education; a textbook for students of education in the quantitative study of school problems.* (Boston: Houghton Mifflin. 1917. Pp. 410. \$2.)

The Canada year book 1916-17. (Ottawa: Census and Statistics Office. 1917. Pp. 720. \$1.)

Official year book of the Commonwealth of Australia, containing authoritative statistics for the period, 1901-1916, and corrected statistics for the period 1788 to 1900. (Melbourne: Commonwealth Bureau of Census and Statistics. 1917. Pp. xl, 1198.)

Statistical year book, Province of Quebec. (Quebec: Provincial Secretary's Department, Bureau of Statistics. 1917. Pp. xi, 555.)

Statistical year book of the Kingdom of Siam, 1916. (Bangkok: Department of Commerce and Statistics, Ministry of Finance. 1917. Pp. 285.)

Resumen anual de estadística municipal, ano XIV, 1916. (Montevideo: Direccion de Censo y Estadística. 1917. Pp. 351.)

DOCUMENTS, REPORTS, AND LEGISLATION

Industries and Commerce

THE STATE MARKET COMMISSION OF CALIFORNIA. The second annual *Report of the State Market Director of California*, covering the development of coöperative marketing associations during 1917, and the same official's first annual report on the *State Fish Exchange* have recently been published (Sacramento, State Printing Office). Both reports are dated December 1, 1917. They contain very little matter not covered in my article published in the March, 1918, number of the REVIEW. That article was written in October, 1917. The reports cover only two more months. The next test of the marketing system will come in the summer and autumn of 1918 when this year's crops mature. The operations of the fish exchange have been hampered by the scarcity of boats and fishermen. Many fishermen have been engaged to supply the new canneries which have been established since the war. An interesting sidelight is the evidence presented as to the absence of waste of food fish. The fertilizer works now receive only the offal, the unedible varieties of fish, and occasionally some fish that have spoiled because a "lucky catch" overstocked the market. Some of the wholesalers have instituted legal proceedings to test the validity of the law. The case is now (April, 1918) pending in court. The director proposes to ask the next legislature which assembles in January, 1919, to extend his jurisdiction over fish canneries. This seems to be a necessary and logical step for complete control.

CARL C. PLEHN.

PROPOSED CONSTITUTIONAL AMENDMENTS FOR SOUTH DAKOTA. At the coming November election the voters of South Dakota will be asked to express their opinion of several proposed constitutional amendments that are of unusual interest. These measures virtually open the way for experimentation in state socialism. At the present time, on account of the war, they are not receiving much discussion, but as election day draws nearer the air is likely to be filled with hot debate over the issues presented.

The proposed amendments fall into three groups. The first group is composed of three amendments relating to state operation of certain public utilities and extractive industries. The first amendment of this group provides that the state shall have the right to acquire, by purchase or appropriation, all property incident or necessary to the "ac-

quisition, ownership, control, development and operation of the water powers" in the state. Competent engineers hold that there are many valuable sites for water power along the streams of the state that could be advantageously developed. In order to keep these natural resources from falling into corporate control and to provide heat, power, and lighting to the many growing young towns of South Dakota, public ownership and operation is widely urged. The amendment would also seem to give the state the right to take over existing electric stations operated by water power. A second amendment gives the state authority to enter the business of mining, manufacturing, and distributing coal. In the northwestern part of the state there are extensive beds of lignite coal which have scarcely been developed thus far because a briquetting process is necessary to make lignite marketable. The price of coal in South Dakota is amazingly high due to the long hauls from the eastern mines. In order to obtain a part of the state's supply, at least, at a lower cost, state mining operations are proposed. The state already owns considerable coal-bearing land upon which the initial work could be begun. Another amendment confers upon the state the authority to engage in the manufacture, distribution, and sale of cement and cement products. Cement material in large quantity is said to be found along the banks of the Missouri River. One or two cement factories have been started in the state, but they have gone out of business and it has been charged that their closing has been caused by the "cement trust" acquiring control over them. Dissatisfaction with this situation and with the high prices for cement now being paid has led to the proposed amendment.

A second group of amendments cover points of especial interest to farmers and stock raisers. One measure provides for compulsory state hail insurance. Under the proposed plan the legislature is authorized to levy assessments upon agricultural land, adjusted among "hail insurance districts" according to the risk. In some sections of the state hail losses have been quite heavy and the rates paid for insurance by old line companies have been considered exorbitant. The need is for state insurance for farmers at cost. Another amendment proposes that the state may purchase or construct and operate "elevators and warehouses, within or without the state, for the marketing of agricultural products" and that it may "buy or construct and operate flouring mills and packing-houses within the state." This amendment owes its origin to a feeling of resentment against the flouring interests of the Twin Cities and the large packing-houses which have branches on the edge of the state at Sioux Falls and Sioux City. It has also been claimed

that if the state should set up flouring mills and packing houses in the interior, the growers could be saved money by the shorter rail hauls and decreases in the shrinkage of shipments.

The third group of amendments is more general in character than these first two. The first amendment in this set authorizes the state to engage in "works of internal improvement," without any limit save that which is imposed through a maximum indebtedness allowed for the purpose of raising funds to carry on such improvements. The second amendment is still more comprehensive, as it provides that "for the purpose of developing the resources and improving the economic facilities of South Dakota, the state may engage in works of internal improvements, may own and conduct proper business enterprises, may loan or give credit to, or in aid of, any association or corporation, and may become the owner of the capital stock of corporations, organized for such purposes." If this amendment should be adopted, all others relating to specified industries would prove unnecessary as the state would have the power to enter into any kind of business the legislature might see fit to approve. The internal-improvement amendment, likewise, would not be needed.

It has been charged that the regular and special sessions of the legislature which proposed these amendments worked under the spell cast by the Farmers' Non-Partisan League which has already secured political control of North Dakota. There may be some truth in this statement. However, there are many persons outside the league who believe that the state should have the power to enter into business enterprises of various kinds whenever it appears that such action would further the best interests of the commonwealth. The extraordinary extension of the powers of the federal government during the war has undoubtedly softened somewhat the old-time antagonism toward government participation in industry. In a *Message to the People of South Dakota* (Redfield, 1918), recently published by the progressive governor of the state, Peter Norbeck, the various amendments are treated purely and simply as business propositions and not at all as socialistic measures. To this statement of the governor's the present writer is indebted for much of his data.

The likelihood of any of the amendments passing is lessened by the fact that six other amendments are to be submitted at the same election. These relate to such subjects as suffrage, tax reform, judicial reform, the sale of state lands, and the salaries of state officers. A primary law is also to be referred to the people at this election. The

voters will in all probability be so confused and perplexed by the situation that they will refuse to approve any of the proposals.

FRANK T. STOCKTON.

University of South Dakota.

From the Bureau of Foreign and Domestic Commerce of the United States Department of Commerce have been received the following publications:

Special Consular Reports: No. 79, *Olive Growing in Spain* (pp. 34), by Wilbur T. Gracey.

Special Agents Series:

No. 154, *Electrical Goods in Ecuador and Peru* (pp. 50), by Philip S. Smith.

No. 156, *Railway Materials, Equipment, and Supplies in Australia and New Zealand* (pp. 164), by Frank Rhea.

No. 158, *Textile Markets of Bolivia, Ecuador, and Peru* (pp. 106), by W. A. Tucker.

No. 159, *Shoe and Leather Trade in Australia* (pp. 39), by C. E. Bosworth.

No. 160, *Construction Materials and Machinery in Colombia* (pp. 75), W. W. Ewing.

No. 161, *Shoe and Leather Trade in the Philippine Islands* (pp. 23), by C. E. Bosworth.

No. 162, *Colombian Markets for American Furniture* (pp. 34), by Harold E. Everley.

The United States Tariff Commission, in the series of bulletins entitled Tariff Information Series, has prepared a *Report on the Dye-Stuff Situation in Textile Industries* (Washington, no. 2, pp. 28), which presents a summary of the quantity and value of dyestuffs consumed in 1913 and 1916 by 77 important companies, and the relation of the dyestuff situation to the manufacture of cotton goods, woolen and worsted and silk goods, and to other finishing companies.

The Department of Commerce has issued a pamphlet on *Inland Water Transportation* for the latter half of the year 1917 (Dec. 8, 1917, pp. 11). The writer, Mr. Walter Parker, emphasizes the importance of the use of navigable streams and waterways both as a war measure and as a factor in commercial development after the war.

The Bureau of Navigation has published a third supplement containing *Amendments to the Navigation Laws of 1915* (Washington, 1917, pp. 19).

The Federal Trade Commission has prepared a pamphlet containing *Extracts from the Trading with the Enemy Act* and executive order of October 12, 1917, and instructions, rules, and forms concerning patents, trade-marks, prints, labels, designs, and copyrights (Washington, pp. 22).

Attention should be directed to the *War Trade Board Journal* (Washington) which is designed to inform exporters and importers concerning administrative rules regulating trade.

Bulletin 135 of the federal Bureau of the Census treats of *Cotton Production and Distribution, 1916-17* (Washington, 1918, pp. 144). This includes import and export statistics as well as those of production. A series of maps shows the amount of cotton ginned, by counties.

The Bureau of the Census has added to its series of *Census of Manufactures: 1914* the following states: Michigan and Pennsylvania.

Statistics of the following manufactures taken under the Census of 1914 have been published by the Bureau of the Census in continuation of the series: Carriages and Wagons and Materials (pp. 17); Cotton Manufactures (pp. 33); Hosiery and Knit Goods (pp. 29); Musical Instruments (pp. 21); Petroleum Refining (pp. 13); Printing and Publishing (pp. 49); Rubber Industry (pp. 15); Slaughtering and Meat Packing (pp. 25); and Steam and Electric Cars, and Railroad Repair Shops (pp. 23).

The United States Department of Agriculture has prepared a series of statistical studies on the following topics (Washington, 1918, Circulars 84-93, 96-101, 103, 107):

The Agricultural Situation for 1918. Part I, *Hogs*, (pp. 24); Part II, *Dairying* (pp. 24); Part III, *Sugar* (pp. 34); Part IV, *Honey* (pp. 8); Part V, *Cotton* (pp. 34); Part VI, *Rice* (pp. 24); Part VII, *Wheat* (pp. 32); Part VIII, *Corn* (pp. 17); Part IX, *Potatoes*; Part X, *Wool* (pp. 14); Part XI, *Poultry* (pp. 24). A number of these pamphlets are illustrated with diagrams.

Sugar Supply of the United States: Its Extent and Distribution on August 31, 1917 (pp. 55).

The Supply of Lard in the United States (pp. 32).

The Supply of Canned Salmon in the United States, Its Extent and Distribution on August 31, 1917 (pp. 13).

Commercial Stocks of Miscellaneous Cereal and Vegetable Foodstuffs in the United States (pp. 28).

Commercial Stocks of Wheat and Flour (pp. 37).

Commercial Stocks of Miscellaneous Animal Food Products in the United States on August 31, 1917 (pp. 19).

Agricultural Production for 1918, with Special Reference to Spring Planting and to Livestock (pp. 22).

Commercial Stocks of Fertilizer and Fertilizer Materials in the United States as Reported for October 1, 1917 (pp. 12).

Other recent publications of the Department of Agriculture are:

Geography of Wheat Prices, Bulletin No. 594, by L. B. Zapoleon (Feb. 21, 1918). This brings together available data showing the range in prices paid to farmers in the different parts of the country. The subject-matter is illustrated by colored maps. The analysis as a whole covers the last five years, but some of the tables relate to longer periods.

Human Food from an Acre of Staple Farm Products, by M. O. Cooper and W. J. Spillman, Farmers' Bulletin 877 (Oct. 1917, pp. 10).

Bulletin No. 541, *Coöperative Organization By-Laws*, by C. E. Bassett (pp. 23).

Two additional parts in the Studies of the Lumber Industry: *The Distribution of Softwood Lumber in the Middle West. Wholesale Distribution*, by O. M. Butler (Washington, Rept. No. 115, pp. 96); and *Retail Distribution*, also by O. M. Butler (pp. 100).

The February issue of the *Monthly Crop Report* of the Department of Agriculture contains statistics of livestock in the United States, 1915-1918.

During the past year a *Marketing Survey of New Haven* (pp. 52) was made for the New Haven Chamber of Commerce by L. D. H. Weld, assisted by students of economics at Yale University. There are chapters on wholesale fruit and produce trade, New Haven retail stores, truck growers, marketing of butter and eggs, meat, and milk, and a comparison of prices in New Haven with prices in neighboring cities. Establishment of a farmers' wholesale market is recommended.

Mr. W. W. Wotherspoon, Superintendent of Public Works of New York, has issued a number of pamphlets relating to the New York state canals: *What the New York State Canals Can Do* (pp. 14); *The Carriers' Earnings and Shippers' Saving* (pp. 18); *The Canal as a Carrier of Coal* (pp. 15, with map); and *The Canal System of New York State* (pp. 21, with map).

The Thirty-first Annual Report of the Statistics of Manufactures of

Massachusetts for 1916 is of interest in showing the enormous increase in the volume of industry in 1916 as compared with the preceding year. The increase in the number of wage-earners was 14.5 per cent.

The Jewish Agricultural and Industrial Aid Society (174 Second Ave., New York City) in its *Annual Report for 1917* describes the increased activity of this organization on account of the extraordinary demands for food products. Tables show the geographical distribution of the loans made by the society and repayments.

The *1918 Yearbook of Swift and Company* contains data showing the prices paid for livestock and dressed beef, receipts and supply of livestock.

From the Coöperative League of America has been received *Consumers' Coöperation during the War*, by Albert Sonnichsen (2 West 13th St., New York, pp. 15, 5 cents).

Corporations

Hearings before the Committee on Interstate Commerce, United States Senate, on *Government Control and Operation of Railroads*, Parts 1-7, have been printed in a bulky volume (Washington, 1918, pp. 1338). These hearings were held in the latter part of December, 1917, and January, 1918. The material is made available by an index of 30 pages.

Memoranda Submitted to the Senate Committee on Interstate Commerce in Relation to Government Control of Railways in Great Britain have been printed for the use of the committee (Washington, 1918, pp. 56).

The *Report of the Special Commission for the Investigation of the Affairs of the Rhode Island Company* (Providence, pp. 69, 89, 57, 105) is of more than ordinary interest. It contains reports of the special engineers who have examined the property. This examination and report involved questions of valuation and allowances to be made for depreciation. There are elaborate tables and charts.

The Presidents' Conference Committee (937 Commercial Trust Bldg., Philadelphia) has printed the *Hearings before the Interstate Commerce Commission* in the matter of the valuation of the property of the Atlanta, Birmingham & Atlantic Railroad Company, of the Texas Midland Railroad Company, and of the Winston-Salem Southbound Railway Company, which were held December 10-13, 1917 (pp. 201).

There has been received from the Public Service Commission of Maryland a brief prepared by the commission in the case of the *Havre de Grace and Perryville Bridge Company vs. Albert G. Towers et al. Constituting the Public Service Commission of Maryland*. (Baltimore, Munsey Bldg., pp. 68). In this case are involved questions of law and fact in connection with rate making, with special reference to methods to be used in determining depreciation reserves.

The Water Works System of the City of Chicago, a report prepared by the Chicago Bureau of Public Efficiency (315 Plymouth Court, Dec., 1917, pp. 207), gives a historical account of the development of the waterworks system and finances with special chapters on water waste and measuring.

The following states have recently issued revised pamphlet editions of their corporation laws:

Corporation Laws of the State of Connecticut, Revised October 1, 1917 (Hartford, pp. 82).

Corporation Laws of the State of Oregon, 1917 (Salem, pp. 138).

Laws Relating to Business Corporations in Massachusetts (Boston, 1918, pp. 73).

Annual reports of public utility commissions have been received as follows :

Statistics for 1916, Part I, Board of Public Utility Commissioners of New Jersey (Trenton, 1917, pp. 86).

Third Annual Report of the State Public Utilities Commission of Illinois, 1916 (Springfield, pp. 200).

Tenth Annual Report of the Public Service Commission, Second District, New York, for the year ended December 31, 1916. Abstracts of Reports of Corporations: Electrical, Gas, Telegraph, Telephone, Steam. Vol. III. (Albany, 1917, pp. 343.)

Fourth Annual Report of the Public Utilities Commission of the State of Idaho, July 1, 1916, to June 30, 1917 (Boise, 1918, pp. 272).

Labor

Consideration by the New York legislature of several proposed amendments to the labor law introduced with the backing of the state industrial commission and other interested bodies is one of the concrete results of a careful study of the operation of the commission law made in 1917 by the New York Bureau of Municipal Research jointly with the American Association for Labor Legislation. Published as Vol.

VII, No. 2, of the *American Labor Legislation Review* the study takes up the tangled history of the development in New York toward unified administration of all labor laws, and presents the enormousness of the task before the commission when it took office on June 1, 1915. The general administration by the commission for the first thirteen months thereafter, the activity of its numerous bureaus and divisions, and its experience with civil service and with the unique advisory industrial council, were all subjected to careful scrutiny, in which the commission itself actively coöperated. Despite certain matters in which the commission had fallen short of what might be expected of it, the new body was found to have "attacked its problems energetically and faithfully and with a deep sense of its responsibility as the authorized public agency for protecting the economic interests of the state's 3,000,000 wage-earners." Many minor recommendations made informally in the course of the study were adopted, and others requiring changes in the law are now being pushed by the commission.

JOHN B. ANDREWS.

Storage Bulletin No. 9 on the Employment of Women in the Storage and Warehousing Depots of the United States Army, prepared by Miss Mary Van Kleeck (Washington, War Industries Board of the Council of National Defense, 5216 New Interior Bldg., pp. 21), summarizes the objections to employment of women in heavy work in depots of the Ordnance Department and other branches of military service. Suggestions are noted as to how this work may be made less arduous.

The federal Bureau of Mines has published a study on *Occupational Hazards at Blast-Furnace Plants and Accident Prevention* (Washington, 1917, pp. 155), which is based on records of accidents in Pennsylvania in 1915. It contains a considerable amount of descriptive material in regard to the blast-furnace industry and its processes. Tables are given showing the time lost on account of accidents.

The *Proceedings of the Twenty-second Annual Convention of the National Association of Manufacturers of the United States*, held at New York in May, 1917, have been published (Secretary's Office, 30 Church St., New York, pp. 82). Of interest is the special report on hours of labor, prepared by Edward B. Saunders of Fitchburg, Massachusetts (pp. 24-43). The volume also contains a special report on the minimum wage by A. Parker Nevin (pp. 43-48); a report on old age pensions, by S. D. Bush (pp. 48-64); and an extended report on industrial education (pp. 70-97).

The National Industrial Conference Board has recently undertaken an original investigation of *Hours of Work as Related to Output and Health of Workers in Cotton Manufacturing* (15 Beacon St., Boston, pp. 64). It is announced that this is one of a series of similar investigations covering a considerable number of industries. The report is based on data gathered by means of schedules filled out by members of the National Association of Cotton Manufacturers and the American Cotton Manufacturers Association, supplemented by field investigations. Replies were received from 166 manufacturers employing 116,000 workers. The investigation covered both northern and southern mills. The matter is well digested and furnishes one of the most enlightening reports that has been published in recent years in regard to industrial conditions in a large and important industry. The statistical difficulties involved in tabulating such an inquiry are clearly recognized. It is concluded that reductions in hours of northern cotton mills from 58 or 56 to 55 or 54 have in the great majority of cases resulted in a substantial decrease in output; and that, from the limited data available for southern mills, those in excess of a 60-hour week do not necessarily yield materially larger output than those running 60 hours a week. When the hours were reduced below 60, a decrease in output resulted. This report deserves the careful attention of all students interested in labor problems.

The *Second Biennial Report of the Industrial Welfare Commission of the State of California, 1915-1916* (Sacramento, pp. 276) contains chapters on a study of the cost of living, employment of women and minors in the garment trades and in the laundry industry, and a report on the canning industry.

This commission has also issued a more detailed report on the *Regulation of Wages, Hours, and Working Conditions of Women and Minors in the Fruit and Vegetable Canning Industry of California* (May, 1917, pp. 176).

The Bureau of Labor Statistics of California has made a compilation of the *Labor Laws of the State of California* (Sacramento, 1917, pp. 268).

The *Hearings before the Committee on Labor*, federal House of Representatives, relating to the appointment of a commission to study social insurance and unemployment, held April 6 and 11, 1916, have recently been published (pp. 317).

The *Twenty-fourth Annual Report of the Inspection of Coal Mines*

and *Coal Production in Kansas, 1916* (Topeka, pp. 243) furnishes in the latter part, relating to investigations of accidents, data in regard to conditions under which mine workers labor.

The *Forty-eighth Annual Report on the Statistics of Labor, Massachusetts, 1917* (Boston, 1918) consists of four parts: Part I, Sixteenth Annual Directory of Labor Organizations in Massachusetts, 1917; Part II, Seventh Annual Report on Union Scale of Wages and Hours of Labor; Part III, Collective Agreements between Employers and Labor Organizations in Massachusetts, 1916; Part IV, Labor Legislation in Massachusetts in 1915, 1916, 1917. The matter is arranged under topical headings and there is a detailed index on recent labor legislation.

From the Minimum Wage Commission of Massachusetts have been received Bulletin No. 14, *Wages of Women in Muslin Underwear, Petticoat, Apron, Kimono, Women's Neckwear and Children's Clothing Factories in Massachusetts* (pp. 58); also *Statement and Decree Concerning the Wages of Women in Men's Clothing and Raincoat Factories in Massachusetts* (pp. 5), and *Statement and Decree Concerning the Wages of Women Employed in the Manufacture of Men's and Boys' Shirts, etc.* (pp. 6).

The Industrial Commission of Ohio has recently issued the following bulletins:

Statistics of Mines and Quarries in Ohio, 1916 (Columbus, pp. 84). This gives statistics of accidents, fluctuation of employment, and production, particularly coal.

Preliminary Survey of Labor Camps in Ohio (pp. 22). A survey was made of 108 camps containing a population of 7,172. The camps are classified as construction, 17; railroad, 67; and factory and mill, 24. Illustrations of the rapidity of labor turnover are given. Comparison is made in regard to inspection and supervision of camp labor in other states.

Union Scale of Wages and Hours of Labor in Ohio on May 15, 1917 (pp. 44). This is the fourth number in this series.

The Industrial Commission of Wisconsin in a *Report on Allied Functions* for the two years ending June 30, 1917, summarizes the various activities of the commission, which are annually increasing in variety. Appended is a classified list of the publications of the commission, which will be of service for reference.

The Department of Labour of Canada has made a *Report on Strikes*

and Lockouts in Canada, 1901-1916 (Ottawa, 1918, pp. 138). It is noted that there has been but slight industrial disturbance in Canada since the outbreak of the war. The mining industry contributes an increasing share of industrial unrest. The report has a chart showing time lost in coal mining disputes during the period under consideration. An effort is made to present a comparison of strikes in other countries. During the period of 1911-1916, there were 166 labor disputes per one million of labor population gainfully employed. Figures for the other countries are: United Kingdom, 246; Australia, 455; France, 219; Italy, 293; Holland, 619.

Among other labor reports to be noted are:

The General Report of the Minister of Public Works and Labour of Quebec, 1917 (Quebec, pp. 175).

Accidents at Metallurgical Works in the United States during 1916 (Washington, Bureau of Mines, pp. 18).

Dangers in the Manufacture and Industrial Uses of Wood Alcohol, a special bulletin prepared by the Department of Labor of New York (Albany, pp. 17).

The Thirty-ninth Annual Report of the Bureau of Industrial Statistics of New Jersey, 1916 (Trenton, pp. 275).

The Joint Commission on Social Service of the Protestant Episcopal Church has issued a pamphlet on *Labor Problems of Wartime* (Church Missions House, New York City, pp. 40). This study is largely based upon secondary material, and an appendix contains a brief bibliography.

Money, Prices, Credit, and Banking

GOLD COIN AND THE CALIFORNIA STATE TREASURY. In February, 1918, the state treasurer of California posted the following notice. (For an understanding of the language it may be well to explain that "currency" is California argot meaning exclusively paper money of any description.)

TO WARRANT HOLDERS

You are asked to accept payment in currency. All banks and tradesmen will accept currency from you. This action will aid the government. I hope you will be able to help conserve the gold supply. Help win the war.

FRIEND WM. RICHARDSON,
State Treasurer.

This notice marks the fall of the last citadel of gold as a circulating medium in the United States. What is written below is "in memoriam."

The laws of California require the payment of all taxes in gold coin. They also obligate the treasurer to pay all claims against the state in gold coin. Hence the above notice is phrased as a request to warrant holders to waive their rights and accept paper in lieu of gold. The treasurer has no power to tender paper when the warrant holder does not waive his right to receive gold.

The circumventing of these laws, or their "liberal interpretation" in the interest of the concentration of gold in the hands of the federal reserve system is brought about as follows. By another set of laws the treasurer is authorized to deposit the money in his custody in the banks, the deposits being duly secured in a manner with which we are not at present concerned. Hence if he wishes he may consider the tender of gold, and the making by himself of a deposit in an approved bank as taking place simultaneously. In that event the gold need not be moved. For nearly eight years now the old practice of shipping gold to Sacramento by express has been partly suspended by the above device. Nevertheless, several millions in gold coin have at times of the year normally accumulated in the state vaults. The change in method, more particularly the acquiescence of warrant holders in the request embodied in the above notice, now leaves this gold in the banks and it goes from them to the federal reserve bank.

It will be remembered that during all the Civil War period California, true to the traditions of the "days of '49," remained on a gold basis. This was done by sheer force of public opinion backed by the specie contract law. Within the past decade the use of paper money has slowly spread from Los Angeles and the centers of eastern immigration in the south to San Francisco and even to the northern parts of the state. The phrase, once common on all invoices and price lists, namely "payable in United States Gold Coin of present weight and fineness" now appears but seldom except in formal contracts and mortgages. People who but a few years ago looked upon paper money with doubt and suspicion or refused to accept it at all now take it with but slight reluctance. Thus was the way paved for the introduction of the federal reserve notes and the withdrawal of gold from actual circulation. Save for her mines and her sunshine the "Golden State" is no longer golden.

CARL C. PLEHN.

The federal Bureau of Labor Statistics continues its reports on *Retail Prices, 1907, to December, 1916*, in Bulletin 228 (Nov., 1917, pp. 427); *Wholesale Prices, 1890 to 1916* are treated in Bulletin 226 (Dec., 1917, pp. 285).

The Guaranty Trust Company has issued a six-page leaflet on *Acceptances* being a reprint of an address by W. G. Avery, March 7, 1918 (140 Broadway, New York):

The United States Department of Agriculture has issued a pamphlet on *Suggestions for an Act Providing for Coöperative Credit Associations or Credit Unions* which can serve as a model for state legislation (Washington, Jan. 23, 1918, pp. 9).

The *First Annual Report of the Federal Farm Loan Board*, covering the period from the organization of the board up to November 30, 1917, has been issued as House Document No. 714 (65 Cong., 2 Sess., Dec. 29, 1917, pp. 31).

The *Proceedings of the Twenty-ninth Annual Meeting of the Massachusetts Coöperative Bank League*, held in Boston, October 27, 1917, contains reference to the relation of liberty loans to withdrawals from building associations (H. W. Pinkham, secretary, 930 Old South Bldg., Boston, pp. 44).

The *Annual Report on the Building and Loan Associations of California*, 1917, notes the considerable increase in the operations of such associations (Sacramento, pp. 107).

The Extension Service of the Connecticut Agricultural College has prepared an 8-page circular, *A Plan for Short-Term Farm Loans in Connecticut*, by Guy C. Smith (Storrs, Nov., 1917).

The *Proceedings of the Thirty-eighth Annual Meeting of the Building Association League of Illinois*, held in October, 1917, have been printed in pamphlet form (M. E. Vasan, Quincy, Ill., pp. 176).

The *Twenty-fifth Annual Report of the Building and Loan Associations of Nebraska, 1917* (Lincoln, pp. 159) shows satisfactory growth.

The League for Preventive Work (Miss Amy Woods, Secretary, 44 Bromfield St., Boston, Mass.) has prepared a pamphlet on *Food Supply in Families of Limited Means*, the report being written by M. M. Davis, Jr., and endorsed by the Massachusetts Food Administration. It is based upon approximately 200 schedules, and aims to present a general description of the families studied, character of diet as shown by food purchases during the selected week, adequacy and economy of diet in relation to size and circumstances of families, with general conclusions and recommendations. Nearly one half of the families earned between \$800 and \$1,000 per year, and the majority had three children.

State bank reports have been received as follows:

Annual Report of the Board of Bank Commissioners of New Hampshire, 1917 (Concord, pp. 400). The increase in savings deposits was over \$7,000,000, or the largest annual increase since 1890. Some reference is made to the effect of the liberty loan upon withdrawals.

Annual Report of the Superintendent of Banks of New York, 1917. (Albany, pp. 449). This deals with commercial banks.

Twenty-second Annual Report of the Commissioner of Banking of Pennsylvania, 1916 (Harrisburg, pp. 747.)

The following reports of state bankers' associations have been received:

The Proceedings of the Sixteenth Convention of the Colorado Bankers' Association, June 13-14, 1917 (Paul Hardey, secretary, Interstate Trust Company, Denver, pp. 212.)

Proceedings of the Twenty-fourth Annual Session of the Florida Bankers' Association, April 6-7, 1917 (G. E. DeSaussure, secretary, Barnett National Bank, Jacksonville, pp. 135.)

Proceedings of the Twenty-sixth Annual Convention of the Georgia Bankers' Association, May 2-4, 1917 (Haynes McFadden, secretary, 313 Chandler Bldg., Atlanta, pp. 178).

Proceedings of the Twenty-seventh Annual Convention of the Illinois Bankers' Association, September 19-20, 1917 (M. A. Graettinger, secretary, 208 South LaSalle St., Chicago, pp. 259).

The Hoosier Banker, November, 1917, which contains the proceedings of the twenty-first annual convention of the Indiana Bankers' Association, October 10-11, 1917 (Andrew Smith, secretary, Indiana National Bank, Indianapolis, pp. 48).

Proceedings of the Twenty-fifth Annual Meeting of the Kentucky Bankers' Association, October 3-4, 1917 (J. C. Cardwell, secretary, Louisville, pp. 162).

Convention Proceedings of the Louisiana Bankers' Association, April 26-27, 1917 (Eugene Cazedessus, secretary, Bank of Baton Rouge, Baton Rouge, pp. 150).

Proceedings of the Twenty-second Annual Convention of the Maryland Bankers' Association, May 23-24, 1917 (Charles Hann, secretary, First National Bank, Baltimore, pp. 136).

Thirty-first Annual Convention of the Michigan Bankers' Association, June 19-20, 1917 (H. M. Brown, Ford Bldg., Detroit, pp. 255).

Proceedings of the Fourteenth Annual Convention of the Montana

Bankers' Association, July 27-28, 1917 (Edgar A. Newlon, Great Falls National Bank, Great Falls, pp. 190).

North Dakota Banker, August, 1917, which contains proceedings of the fifteenth annual convention of the North Dakota Bankers' Association, July 10-12, 1917 (W. C. McFadden, secretary, Fargo, pp. 96).

Proceedings of the Twenty-first Annual Convention of the North Carolina Bankers' Association, June 19-21, 1917 (William A. Hunt, Citizens Bank, Henderson, pp. 115).

Report of the Annual Convention of the Rhode Island Bankers' Association, June 22-23, 1917 (E. A. Havens, secretary, Mechanics National Bank, Providence, pp. 21).

Report of the Twenty-Sixth Annual Convention of the South Dakota Bankers' Association, June 26-27, 1917 (A. B. Darling, Aberdeen National Bank, Aberdeen, pp. 135).

Texas Bankers' Record, June, 1917, which contains the proceedings of the thirty-third annual convention of the Texas Bankers' Association, May 15-17, 1917 (William A. Philpott, Jr., secretary, Dallas, pp. 80).

Proceedings of the Twenty-fourth Annual Convention of the Virginia Bankers' Association, June 21-23, 1917 (V. Vaiden, secretary, Farmville, pp. 270).

Proceedings of the Twenty-second Annual Convention of the Washington Bankers' Association, June 14-16, 1917 (W. H. Martin, secretary, Pioneer National Bank, Ritzville, pp. 211).

Proceedings of the Twenty-fourth Annual Convention of the West Virginia Bankers' Association, September 20-21, 1917 (Joseph S. Hill, secretary, Charleston National Bank, Charleston, pp. 115).

Proceedings of the Twenty-third Annual Convention of the Wisconsin Bankers' Association, June 26-27, 1917 (George D. Bartlett, 408 Pabst Bldg., Milwaukee, pp. 230).

Public Finance

The United States Internal Revenue Bureau of the Treasury Department has issued an *Income Tax Primer* (Washington, House Document No. 841, 65 Cong., 2 Sess., 1918, pp. 45); Regulations No. 33, revised, governing the collection of the *Income Tax* (1918, pp. 199); and Regulations No. 41 relative to the *War Excess Profits Tax* (1918, pp. 56).

The Guaranty Trust Company has reprinted the *Excess-Profits Tax Primer* which was prepared by the Bureau of Internal Revenue (pp.

12); and has made a summary of *The Federal Income Tax Law* as amended October 3, 1917, with a summary of law and regulations relating to individuals, fiduciaries, and partnerships (pp. 140); also a reprint of the *War Excess Profits Tax Law* of October 3, 1917 (pp. 94).

Halsey, Stuart & Co. has also made a reprint of the *War Excess Profits Tax Regulations* (Chicago, pp. 45).

The Chatham and Phenix National Bank (149 Broadway, New York) has briefly analyzed the *New War Tax Law* (pp. 16).

The third edition of the *Wisconsin Income Tax Law* with explanatory notes has been prepared by the Wisconsin Tax Commission (Madison, Dec., 1917, pp. 65).

Law Relating to the Income Tax of Delaware has been reprinted by the state treasurer (Dover, pp. 16).

Mr. J. M. Ginty of the Assessor's Office of San Francisco has prepared a pamphlet on *Scientific Methods of Appraising Farm Lands* (pp. 16), with a view to providing a standard of appraisal, and invites criticism.

Revenue Laws of the State of Washington, 1917 have been compiled (State Tax Commissioner, Olympia, pp. 112); and also the *Revenue Law of Iowa, 1917* (Frank S. Shaw, auditor of state, Des Moines, pp. 24).

The State Tax Commission of Oregon has made a compilation of *Laws Relating to Assessment and Taxation, 1917* (Salem, pp. 88).

The *Twenty-seventh Report of the New York Tax Reform Association* (29 Broadway, New York, pp. 8) summarizes tax legislation in the state of New York, and, more briefly, tax legislation in the other states, for 1917.

The state auditor of Ohio has issued advance excerpts of the financial report in regard to *Ohio Public Debt in Relation to Taxation and Tax Limitations* (Columbus, pp. 76).

In the *Report of the Commission on Economy and Efficiency of Virginia*, presented to the legislature in January of this year, there is a chapter on the budget system with a discussion of the proposed budget law (Richmond, pp. 67).

The Bureau of Municipal Research of Toronto has issued a pamphlet entitled *Analysis of Toronto's Budget for 1917* (Traders Bank Bldg., Toronto, pp. 24). This is illustrated by charts.

The *Report of the Joint Special Committee on Corporation Tax, Massachusetts* (Boston, Senate Document No. 28, 1918, pp. 50) recommends the repeal of the franchise tax on business corporations and the substitution of taxation based on income.

The following reports have been received from state tax commissions:

Annual Report of the State Tax Commission of New York, 1917 (Albany, pp. 85).

Second Biennial Report of the Tax Commission of Maryland, February 15, 1918 (Baltimore, pp. 483). Special reference is made to the uniform standard which has been adopted for the valuation of land and improvements, and it is asserted that "nothing of this kind or as comprehensive can be found in any state in the union."

Fourth Biennial Report of the State Tax Commission of Oregon, 1917 (pp. 62).

Sixth Annual Report of the Colorado Tax Commission, 1917 (Denver, pp. 164).

Insurance

REPORTS ON HEALTH INSURANCE. At the present time nine states (California, Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, Ohio, Pennsylvania, Wisconsin) have in existence commissions investigating the problem of social insurance, with the field of sickness or health insurance generally regarded as the most pressing subject. Of these, the California commission reported in 1917 with a favorable recommendation for a state system of health insurance and the commission was continued in order to further develop the subject. The New Jersey commission reported favorably and the Massachusetts commission reported adversely as to health insurance.

The New Jersey commission on old age, insurance and pensions made a brief progress report to the legislature of 1917 and was continued during the year 1918. Its report bears the date of November, 1917 (*Report on Health Insurance by the New Jersey Commission on Old Age and Pensions, Rahway, 1917*, pp. 20), and in brief, readable form presents a well developed argument for a state system of compulsory health and maternity insurance. The commission at the outset expresses the opinion that the entrance of the United States into the war had made the problem of health conservation even more important than in times of peace. Of the two problems of health insurance and of old age insurance, the commission holds that the former is of

greater importance and announces that at a later date it will present a draft of a bill for health and maternity insurance.

Throughout this preliminary report, a special effort has been made to present data showing New Jersey's experience. The extent of sickness in the state is estimated from certain representative studies and particular emphasis is placed on the large number of industries in which poisonous material is used and in which conditions of dust are prevalent. The report is, however, open to criticism because of the scanty nature of the sickness data presented. The wage rates in the manufacturing industries of the state show that nearly two-thirds of the men have an annual income of \$780 or less, without making any allowance for unemployment. Available information as to savings shows that persons with less than \$800 income are practically unable to provide for sickness in this manner. The cost of living of an average workman's family is taken to be about \$800 annually.

The present methods of securing sickness insurance are through stock companies, fraternal orders, establishment funds, or trade union benefit funds. All of these on examination are found to be insufficient; the first is unduly expensive, while the others, excellent as they are, do not provide a satisfactory solution of the problem. A state supervised plan of compulsory insurance, making use of the existing institutions in so far as they are on a sound basis, is the only remedy for the existing conditions and would provide an incentive for preventive measures. It should provide medical care, instruction in health matters, a cash benefit to minimize financial distress, maternity care; the supervision should be in the hands of the state labor department, acting in harmony with the existing health agencies.

In Massachusetts, by resolve of the legislature approved May 25, 1917, a commission on social insurance consisting of nine members of the legislature and two other persons was appointed to investigate "the extent to which poverty occasioned by sickness may be alleviated, medical care for wage-earners and others of limited means may be provided, and measures to prevent disease may be promoted, by insurance." The commission was organized on June 25, 1917, and its report bears the date of January 15, 1918 (*Report of the Special Commission on Social Insurance*, Senate No. 244, Boston, 1918, pp. 178). Public hearings were held in the large cities in the state and visits were made to ten large industrial establishments. The basis of the discussions at the hearings was the bill advocated by the American Association for Labor Legislation.

A majority of nine members (including the two not members of the legislature) signed a report that it "does not feel justified in recommending a bill to establish a system of compulsory state health insurance." A minority of two members advocated a compulsory system under which the wage-earner would not be required to contribute towards the expense. One member of the majority added a supplementary statement that he was unwilling to take the attitude of opposition to a system of health insurance, but that he believed the present time was not opportune for the adoption of such an important measure. All of the members recommend further study of the question.

In the preparation of its report, the commission held hearings and invited an expression of opinion from wage-earners, employers, physicians, pharmacists, insurance companies, and the general public. Practically all of the labor men who appeared were opposed to any health insurance unless it was on the non-contributory plan; and an extract from an address by the president of the American Federation of Labor, strongly opposing a compulsory system, is given as indicating the prevailing sentiment of organized labor. The testimony of employers is summarized as being definitely opposed to the plan. The medical profession, "as a unit" asked that the matter be given more consideration before the enactment of legislation. A state association of retail pharmacists recorded its opposition. The insurance companies' representatives viewed the proposal with alarm. Under the group, the "general public" it is stated that several people appeared in an individual capacity and expressed a wide variety of opinions; in this group were the members of the Massachusetts health insurance committee who were the principal advocates of the plan. But even the most ardent advocates of compulsory health insurance urged the importance of further study. On the basis of this evidence the commission arrived at the conclusion already stated.

As measures better adapted to the needs and habits of the people of the commonwealth, the commission recommends voluntary health insurance, including voluntary maternity insurance; the extension of welfare work in industrial establishments; and the encouragement and expansion of the present facilities for preventive work. Two drafts of bills are presented; first, to extend voluntary group insurance and second, to provide diagnostic equipment for clinics and dispensaries.

A number of interesting studies are given as appendices; a study on dependent families in Massachusetts receiving mothers' aid, prepared by the state bureau of statistics, and a report on dispensary clinics in

Massachusetts, by M. M. Davis, Jr., are the larger of these and afford some valuable data not elsewhere presented in this form.

To one familiar with the subject, it is at once apparent that the report was prepared to show all the imperfections and disadvantages of a compulsory system of health insurance and, at that, it cannot be said that the task was done very well. The writers of the report were evidently not well versed in handling statistical matter, as the reference "a decrease of nearly 200 per cent" (p. 26) indicates. The sweeping assertion that "statistics have proved that far from diminishing illness, indemnification for wage loss has increased it and encouraged malingering" (p. 54), makes one wish that these statistics had been quoted at length; the few figures given on page 42 as to the German and Austrian experience, without any explanation of the increase in the occupation groups covered and of the increase in the benefit periods during the years cited, certainly do not warrant any such conclusion. The statement in the British reports to the effect that the establishment of their system had brought to light a vast amount of illness unknown and unsuspected prior to that time, might be considered an adequate reply to the claim that indemnity for wage loss increases illness. One can readily understand that the proposed break with the traditional method of handling wage-earners' ability would meet with opposition from many minds and even the hardest advocate of compulsory insurance would have to admit the many shortcomings of the plan, but we have become so accustomed to accurate and scientific studies from Massachusetts commissions on social and economic problems that the present report is a distinct disappointment.

As industrial conditions in the United States more closely resemble those in Great Britain than in any other European country, the operation of the British health insurance system is always of special interest. The third report of this system (*Report on the Administration of National Health Insurance during the Years 1914-17*, Cd. 8890, London, 1917, pp. 345) has appeared after a long delay, due to war conditions; the first report covered the year 1912-13; and the second, 1913-14, was published just before the outbreak of the war. The 1914-17 report therefore is distinctly an account of the working of the system under war conditions, and a large part of the activities described relate to the war. The general arrangement of the report follows that of the preceding issues, with separate sections for each of the four countries of the Kingdom, though most of the general features are included in the section on England. The statistical information is,

for the most part, contained in the appendices; there is the same absence of tables with data for all four countries which characterized the earlier reports and which makes one wish for more centralization in some of the work of British statistical offices.

During the three years, a long series of amending acts has been passed and much space is devoted to the scope and effect of these new laws. The act of 1918 is of course too recent to be included.

Particular importance attaches to the expenditures for sickness, etc., during the war years and it is of interest to find that there has been a marked decline in the expenditure per insured person during 1915 and 1916. The cost for men decreased from 2.43d. weekly in 1914, to 2.22d. in 1915, and 2.06d. in 1916; for women, the figures are 2.37d. in 1914, it fell to 1.84d. in 1915, and to 1.56d. in 1916. The report places the chief reason for this decline on the higher wages received by the insured during these years, the absence of unemployment, and the consequent general improvement in the standard of living of the wage-earning population. The actuaries note with satisfaction that the claims for men have always been below the sum provided in the original actuarial estimates; and, while the claims for women for the first years were in considerable excess over the estimates, they have now fallen to the level provided. The maternity claims, on account of the war, have also shown a striking decline; the benefits paid on account of men's insurance numbered about 840,000 in 1914, they were 760,000 in 1915, and 730,000 in 1916; for women's insurance they were about 130,000 in 1914, the number fell to 115,000 in 1915, and to 105,000 in 1916. For reasons of public policy, information as to the number of persons insured is withheld.

The relations with the medical profession came to the fore in connection with the revision of the drug tariff; this was finally settled by continuing the existing guarantee of at least 7s. per member to the doctors and by having the national treasury assume the risk of a possible insufficiency in the drug fund. Another matter in which the profession was affected was the supply of medical officers for the military forces; before consenting to the enrolment of a panel practitioner, the insurance commissioners have always investigated local conditions and assured adequate medical service for the panel patients. One of the many disturbances caused by the war was the postponement of the plan to provide trained nurses for the insured persons.

The critics of the British system frequently call attention to the lack of success of the sanatorium benefit; the extent of the work done under this aspect of the system is stated in a recent report (*Return as*

to the Administration of Sanatorium Benefit from January 12, 1914, to December 31, 1915, Cd. 8845, London, 1917, pp. 8). In the year 1915, the expenditure under this benefit, which is entirely for tuberculosis, was £810,000; the number of persons receiving treatment was 35,997. The number of beds available in England is about 11,000. A large amount of dispensary and home visiting work was also done. Undoubtedly there is still much room for improvement in this feature of promoting public health; the number of beds available is much below the actual needs and the number of cases treated is surprisingly small.

One feature of the preventive work connected with the insurance system is reported on by the special committee in charge (*Third Annual Report of the Medical Research Committee, 1916-1917*, Cd. 8825, London, 1917, pp. 88). Naturally the major part of the work undertaken has been of a technical medical nature, but of general interest are the summaries of the work on the hygienic relations of the milk supply, the inhalation of dust and pulmonary diseases, the work on industrial fatigue, trinitrotoluene poisoning, etc. The committee's statistical section has collected an extensive series of records of value for medical and other scientific purposes and which will serve as a permanent register of every person injured or ill as a result of military employment during the war. It is expected to be of special value in connection with the administration of the pension system. The staff of the statistical section of the committee prepared a number of special studies, most of which, in condensed form, were published in the *Journal of the Royal Statistical Society*.

The committee is also publishing a special series of studies, the latest of which relates to child mortality (*The Mortalities of Birth, Infancy and Childhood*, Special Report Series No. 10, Medical Research Committee, London, 1917, pp. 84). The volume consists of a collection of studies. Dr. A. K. Chalmers contributes an interesting historical note, showing the changes in medical opinion from the eighteenth century to date, with comment on the deductions made on infant mortality data at various periods by contemporary writers. Dr. W. A. Brend discusses "The relative importance of pre-natal and post-natal conditions as causes of infant mortality." On the basis that high infant mortality is essentially a result of urbanization, he takes issue with the accepted opinion that poverty is one of the greatest causes of infant deaths and with the idea that industrial employment of the mother is a chief cause of these deaths. These conclusions are of course directly at variance with the mass of statistical information

recently collected by the United States Children's Bureau and the Bureau of Labor. The second study is by Dr. Leonard Findlay on "The causes of infant mortality"; he concludes that the various infant welfare schemes, such as milk depots, infant clinics, etc., are of little value in reducing the death rate and at any rate their true effects need scientific investigation. He calls attention to the apparent periodicity in the infant death rates from various zymotic diseases. The volume is concluded by Dr. John Brownlee's paper on "The changes in the physiological processes of the developing child as shown by its response to different diseases"; the facts of the study are presented statistically, with elaborate graphs to show the tendencies of the data in the tables. By using the "healthy district life table" as a standard, he makes a comparison of urban and rural infant death rates and after comparing the causes of death, he concludes that death rates must be considered in relation to the physiology of development.

HENRY J. HARRIS.

REPORTS ON PENSIONS. The usual experience of discovering that the state has permitted a number of pensions systems to be established without first counting the cost has come to the state of New Jersey, whose special commission has just presented its recommendations (*Report of the Pension and Retirement Funds Commission*, February, 1918, pp. 20). Practically all of the funds in the state are bankrupt and, as 23,950 persons have been promised benefits in these funds, the situation is a grave one. The report gives a clear account of the general principles involved in the provision of pensions, describes the existing situation and in a separate statement outlines a plan for a retirement system for state employees (published in "State Research" of the New Jersey State Chamber of Commerce, December, 1917). The proposal is to provide at sixty, a benefit of one-seventieth of the average salary of the last ten years of service, multiplied by the number of years of service; other benefits are for disability, for death, and for return of contributions upon separation. The cost is to be defrayed by the employee and the state.

The New York City Commission on Pensions has brought out the third part of its report (*Report on the Pension Funds of the City of New York*, Part 3, Report and Appendix 1; Appendix 2, 1918, pp. 42; 151). The first of these two volumes bears the subtitle "A proposed retirement plan to cover all entrants into the municipal service with provision for optional participation by present employees of the city

of New York"; the second volume, appendix 2, is designated "An actuarial report on the cost of the proposed system." The actuary of the commission was Mr. George B. Buck, who had the advice of a committee of prominent actuaries of the city.

At the outset the commission recommends that the existing funds be closed to new entrants, who now join them at the rate of over seven thousand annually. The plan suggested has a minimum retiring age varied by occupation, with 55 for street cleaners, 58 for firemen and policemen, 60 for clerks, 62 for teachers, etc. The service retirement is to be paid for equally by the city and the employee, the latter's contribution being 4 per cent of his salary. The cost of service accidents is to be defrayed by the city. The benefit provided is based on the half pay plan, but worked out in the form of a "service-fraction," to which is added the annuity purchased by his own contributions. Thus a clerk (whose service fraction is $1/140$) who had completed 35 years of service, would be entitled to receive $35/140$ of his average salary for the last ten years of his employment, in this case one fourth, at the cost of the city; to this would be added the annuity which his own contributions purchased, making in all about one half his final compensation after 35 years, or about 37 per cent after 40 years of service. The employee already in the service is cared for by having the city grant an allowance of $1/140$ for each year of employment prior to the date when the new fund is established. The other benefits are the recognized features of disability, death, separation (at 4 per cent), etc. The report gives careful estimates of the cost of such a system, with elaborate statistical tables for all of the features involved.

HENRY J. HARRIS.

The Department of Labor and Industries of Minnesota, in Bulletin No. 14, compiles *Court Decisions, Attorney General's Opinions, Department of Labor Opinions relative to the Workmen's Compensation Act* (St. Paul, Sept., 1917, pp. 49).

The Industrial Commission of Ohio, in its bulletin for December, 1917, gives a *Survey of the Workmen's Compensation Insurance Field in this Country*, prepared by Emile D. Watson (Columbus, 1918, pp. 93). The evidence is designed to show the advantage of the Ohio state insurance plan as compared with systems followed in other states. Comparisons of rates more particularly are made with those obtaining in New York, California, Illinois, Wisconsin, Indiana, Michigan, Kentucky, Colorado, and Pennsylvania.

The Industrial Commission of Wisconsin, in its *Sixth Annual Report*

on *Workmen's Compensation, 1917* (Madison, pp. 102), notes that the number of claims has increased in one year by 25 per cent.

The Sixth Annual Report of the Industrial Insurance Department of Washington, 1917 (Olympia, 1918, pp. 77) notes that the volume of business coming before that board has increased 50 per cent due to the extraordinary amount of construction and manufacturing.

The Manager's Seventh Annual Report of the United States Steel and Carnegie Pension Fund, for 1917, gives statistics of the number of pensions granted by that company showing the disbursements of the several mills.

Proceedings of the Forty-Eighth Session of the National Convention of Insurance Commissioners held in St. Paul, Minnesota, August 28-31, 1917, and of adjourned meetings held in New York, December 12, 1916, and in Des Moines, Iowa, April 17, 1917, have been compiled in a volume of 302 pages (Columbia, S. C., F. H. McMaster, secretary, 1917).

The Insurance Society of New York has issued *Marine Insurance*, an address delivered by Mr. Benjamin Rush, president of the Insurance Company of North America, February 26, 1918 (New York, pp. 33).

PERIODICALS

The REVIEW is indebted to Robert F. Foerster for abstracts of articles in Italian periodicals, and to R. S. Saby for abstracts of articles in Danish and Swedish periodicals.

Theory

(Abstracts by Arthur N. Young)

- AYERS, C. E. *The function and problems of economic theory.* Journ. Pol. Econ., Jan., 1918. "Economic theory moves through a cycle of criticism, reconstruction, approbation, and renewed criticism of the institutional order."
- BORGATTA, G. *L'opera sociologica e le feste giubilari di Vilfredo Pareto.* Rif. Soc., Nov.-Dec., 1917. Pp. 41. The sociological theories of Pareto as developed in utterances by and concerning him at an anniversary dinner in his honor held at the University of Lausanne.
- CLARK, J. M. *Economics and modern psychology.* I. II. *Constructive statement: outline of the theory of economic guidance.* Journ. Pol. Econ., Jan., Feb., 1918. Pp. 30, 30. (1) Currently accepted explanations of market price are incomplete because they give inadequate attention to some of the important forces determining human behavior in respect to economic choice. (2) Economic guidance by virtue of private initiative has some important defects, and increased social control is needed in certain directions.
- FOREMAN, C. J. *Profits of efficiency.* Am. Econ. Rev., June, 1918. Pp. 18.
- HAMILTON, W. H. *The price-system and social policy.* Journ. Pol. Econ., Jan., 1918. A careful analysis of the influence which the price system as an institution exerts upon the individual and upon social progress.
- HOYT, H. *The economic function of the common law.* Journ. Pol. Econ., Feb., 1918. Pp. 32. That measure of stability required for orderly economic activity, which it is the function of the common law to provide, is often underrated in importance.
- JANES, G. M. *Who ought to have wealth.* Quart. Journ. Univ. of N. D., Jan., 1918. Pp. 8. Summarizes briefly the several ideals of distributive justice.
- PARETO, V. *Forme di fenomeni economici e previsioni.* Riv. di Sci. Banc., Aug.-Sept., 1917. Pp. 12.

Economic History, United States

(Abstracts by E. L. Bogart)

- BARR, G. W. *The wizardry of metals at Keokuk.* Iowa Mag., Oct., 1917. An account of the Keokuk dam on the Mississippi River and its utilization.
- CLARKE, W. *Observations on the late and present conduct of the French, etc. (1774).* Mag. of Hist., Dec. (extra no.), 1917. Pp. 31. Reprint of a rare tract, which held that the territorial rights of the British colonists extended clear across the continent.

- DIEKEMA, G. J. *Holland emigration to Michigan: its causes and results*. Mich. Hist. Mag., Oct., 1917. Pp. 12. The cause was religious persecution in Holland; the result was the transfer in 1847 of a band of strong character to American soil and allegiance.
- FRANKLIN, B. *Observations concerning the increase of mankind, etc.* (1775). Mag. of Hist., Jan. (extra no.), 1918. Pp. 10. A reprint of an interesting essay, the authorship of which was long unknown. Franklin anticipates Darwin in some of his statements.
- GITTINGER, R. *The formation of the state of Oklahoma (1903-1906)*. Univ. of Calif. Publ. in Hist., Vol. VI, 1917. Contains much of economic interest.
- HERRING, W. E. *Industrial future of Seattle*. Stone & Webster Journ., Mar., 1918. Pp. 6. The hope of the future lies in the development of manufactures and a strong foreign trade with Japan and the Orient.
- HUTCHINSON, D. W. *The story of a dream come true*. Iowa Mag., Oct., 1917. History of water-power development on the Mississippi River culminating in the construction of the Keokuk dam.
- KELLEY, H. J. *A general circular to all persons—who wish to emigrate to the Oregon Territory (1851)*. Mag. of Hist., Jan. (extra no.), 1918. Pp. 25. A reprint of a circular to urge persons to settle in Oregon. The author conducted a party there, but was expelled by the Hudson's Bay Company.
- KELLOGG, L. P. *Bankers' aid in 1861-62*. Wis. Mag. of Hist., Sept., 1917. Assistance rendered the state during the early years of the Civil War.
- NEUBIGGIN, M. I. *Race and nationality*. Geog. Journ., Nov., 1917. Growth of commerce and industrial unity tends to break down racial or national unity.
- PARKER, A. C. *How flint arrows were made*. Am. Indian Mag., Sept., 1917. A contribution to the industrial history of the Indians.
- PATCHIN, S. A. *The development of banking in Minnesota*. Minn. Hist. Bull., Aug., 1917. Pp. 60.
- PEIRCE, P. S. *Social surveys of three rural townships in Iowa*. Iowa Studies in the Soc. Sci., 1917. Housing, education, religious and social environment.
- POLLOCK, I. L. *State finances in Iowa during the Civil War*. Iowa Journ. Hist. & Pol., Jan., 1918. Pp. 55. A full and authoritative account of revenues and expenditures.
- POLLOCK, I. L. *The Iowa war loan of 1861*. Iowa Journ. Hist. & Pol., Oct., 1917. An account of a state loan to finance military preparation, and its difficulties.
- PUTNAM, J. W. *The Illinois and Michigan Canal: a study in economic history*. Chicago Hist. Soc. Collections, Vol. X., 1917. The main emphasis of this study is upon the economic influence of the canal.
- SCOTT, L. M. *The pioneer stimulus of gold*. Quart. of the Ore. Hist. Soc., Sept., 1917. The influence of the gold discoveries in stimulating migration.
- VAN SCHELVEN, G. *Michigan and the Holland immigration of 1847*. Mich.

Hist. Mag., Oct., 1917. Pp. 25. An account of the founding of the town of Holland, Mich., by A. C. Van Raalte and his followers.

VISMARA, J. C. *Coming of the Italians to Detroit*. Mich. Hist. Mag., Jan., 1918. Pp. 15. Traces the movement since 1855, in a biographic fashion.

Economic History, Foreign

(Abstracts by Clive Day)

LÉMONON, E. *La guerre et la situation économique de l'Italia*. Journ. des Econ., Dec., 1917. Pp. 14. A substantial statistical study.

MANN, H. H. *The early history of the tea industry in northeast India*. Bengal Econ. Journ., Jan., 1918. Pp. 16.

MARION, M. *Le maximum (mai 1793-Nivôse an III)*. Rev. d'Etudes Hist., July, 1917. Pp. 36. An account of the price legislation of the French Revolution.

PEATIE, R. *The isolation of the lower St. Lawrence Valley*. Geog. Rev., Feb., 1918. Pp. 16. A study in anthropogeography.

RAFFALOVICH, A. *L'Allemagne économique et financière en 1917*. L'Econ. Franç., Feb. 2, 1918. Pp. 2.

RAPPOPORT, A. S. *The economic and financial future of Russia*. Finan. Rev., Dec., 1917. Pp. 15. "A great economic future lies in store."

SCHUYLER, R. L. *The abolition of British imperial preference, 1846-1860*. Pol. Sci. Quart., Mar., 1918. Pp. 15. A continuation of the study published in September, 1917.

WATSON, E. W. *A four-field manor in Bedfordshire*. Eng. Hist. Rev., July, 1917. Pp. 2.

The industrial development of Italy. Econ. World, Jan. 3, 1918. Pp. 3.

Railways and Transportation

(Abstracts by Julius H. Parmelee)

BAKER, J. E. *The car conservation problem solved in China*. Ry. Age, Feb. 8, 1918. Pp. 3. "Free time" shortened, high storage rates introduced, and charges proportioned to capacity.

BARRON, M. L. *State regulation of the securities of railroads and public service companies*. Ann. Am. Acad., Mar., 1918. Pp. 24. Analysis of state laws.

BAUER, J. *The federal valuation of railroads in relation to a definite policy of national railway control*. Am. Econ. Rev. Supplement, Mar., 1918, Pp. 21. Advocates valuation as a basis for rate making, on the value-of-service principle.

BYRAM, H. E. *Principles and practices of car service regulation*. Ann. Am. Acad., Mar., 1918. Pp. 9.

CLARK, V. S. *Living condition of train operatives at home and on the road*. Railroad Trainman, Mar., 1918. Pp. 7. Extract from report of the Eight-Hour Commission.

- COLLYER, N. *Mobilizing intelligence on American railways*. Ry. Age, Feb. 22, 1918 (also Ry. Rev., Mar. 2). Problem of the labor turnover.
- CONVERSE, P. D. *The problem of the transcontinental rate structure*. Journ. Pol. Econ., Mar., 1918. Pp. 11.
- CONWAY, T., Jr. *Railroad security issues under government operation*. Ann. Am. Acad., Mar., 1918. Pp. 10.
- CULLEN, G. A. *The relation of the railroad to the farmer*. Ry. Age, Feb. 8, 1918. Pp. 2.
- DECKER, M. S. *How could nationalization of rate regulation best be accomplished?* Ann. Am. Acad., Mar., 1918. Pp. 10.
- DUNN, S. O. *The railways in peace and war*. Yale Rev., Jan., 1918. Pp. 20. Problems growing out of war conditions.
- DUNN, S. O. *What government ownership would mean*. Ry. Age, Apr. 5, 1918. Pp. 5.
- ESCH, J. J. *Regulation of car service under government control of operation*. Ann. Am. Acad., Mar., 1918. Pp. 8.
- HACKETT, F. W. *The Adamson act decision*. Am. Law Rev., Jan.-Feb., 1918. Pp. 18. Critical analysis of Supreme Court decision on the eight-hour train service law of September, 1916.
- HALE, R. L. *The Supreme Court's ambiguous use of "value" in rate cases*. Columbia Law Rev., Mar., 1918. Pp. 22.
- HALL, J. R. *Coördination of all transportation facilities*. Ry. Age, Apr. 5, 1918. Pp. 4. Value of coöperation under private operation.
- HOFFSTOT, H. P. *History and development of steel cars in America*. Ry. Rev., Mar. 9, 1918. Pp. 2.
- HOWARD, S. E. *Some aspects of French railway war finance*. Quart. Journ. Econ., Feb., 1918. Pp. 24. Financial relations of French roads to government, with results and proposed modifications since 1914.
- HOWE, F. C. *The necessity for public ownership of the railways*. Ann. Am. Acad., Mar., 1918. Pp. 10.
- JOHNSON, A. B. *Railroad administration's motive power problems*. Ry. Age, Apr. 12, 1918. Pp. 4.
- LAMB, W. E. *Legal questions involved in nationalization of rate regulation*. Ann. Am. Acad., Mar., 1918. Pp. 14.
- LENT, J. F. *Our transportation in the present crisis*. Pro. Ry. Club of Pittsburgh, Feb. 21, 1918. Pp. 13.
- LITTLE, J. A. *The point now reached in the federal regulation of intrastate rates*. Ann. Am. Acad., Mar., 1918. Pp. 12.
- LOREE, L. F. *The investment in American railroads*. Ry. Age, Apr. 5, 1918. Pp. 4.
- LOVE, J. E. *Regional railroad commissions; their relation to the state com-*

- missions and to the interstate commission.* Ann. Am. Acad., Mar., 1918. Pp. 5.
- VAN METRE, T. W. *Failures and possibilities in railroad regulation.* Ann. Am. Acad., Mar., 1918. Pp. 13.
- VAN METRE, T. W. *Responsibility for railway chaos.* New Repub., Feb. 2, 1918.
- MIDDLETON, P. H. *Our foreign trade in railway supplies.* Ry. Age, Apr. 12, 1918. Pp. 3.
- MOORE, J. F. *Remarkable progress being made by R. R. Y. M. C. A.* Ry. Age, Apr. 5, 1918. Pp. 5. Illustrated.
- PALMER, H. A. *Control of railroads after the war.* Ann. Am. Acad., Mar., 1918. Pp. 8. Recommends certain reforms; unified methods of regulation, pooling of facilities, greater efficiency, etc.
- PALMER, W. S. *How can railroad men display their patriotism?* Pro. Pacific Ry. Club, Feb., 1918. Pp. 7.
- PARKS, C. E. *Scrap reclamation on the Atchison, Topeka, & Santa Fe Ry.* Ry. Rev., Jan. 26, Feb. 2, 1918. Pp. 4, 6. Illustrated.
- PARMELEE, J. H. *Physical needs of the railroads under government control.* Ann. Am. Acad., Mar., 1918. Pp. 17. At least \$500,000,000 annually.
- PAYNE, J. L. *Brain-racking problems for Canadian roads.* Ry. Age, Apr. 5, 1918. Pp. 3. Weather conditions, equipment shortages, heavy traffic.
- PENNINGTON, M. E. *The transportation of perishable commodities.* Ry. Age, Jan. 11, 1918. Pp. 6. With charts.
- PFEIFER, H. J. *The terminal question.* Pro. St. Louis Ry. Club, Mar. 8, 1918. Pp. 16.
- PLUMB, G. E. *Adjustment of labor's demands during federal control of railroad operation.* Ann. Am. Acad., Mar., 1918. Pp. 11. A legal analysis.
- POST, G. A. *Reconstituting railroad regulation.* Ann. Am. Acad., Mar., 1918. Pp. 3.
- RICH, E. J. *Necessity for exclusive federal control over state and interstate rates.* Ann. Am. Acad., Mar., 1918. Pp. 15.
- SMITH, A. W. *A suggested plan for permanent governmental supervision of railroad operation after the war.* Ann. Am. Acad., Mar., 1918. Pp. 15. Federal incorporation and regional holding companies.
- SPEARE, C. F. *Uncle Sam takes the railroads.* Rev. Rev., Feb., 1918. Pp. 6.
- STAACKS, W. *Railroad receiverships and the control bill.* Invest. Wkly., Mar. 23, 1918.
- STEPHENS, A. *The world market for American railway supplies.* Ry. Age, Apr. 5, 1918. Pp. 5.
- THELEN, M. *Federal control of railroads in war time.* Ann. Am. Acad., Mar., 1918. Pp. 11.

- THELEN, M. *Federal control of railroads in war time.* Ann. Am. Acad., Mar., 1918. Pp. 11. Historical review of events leading up to government control.
- THORNE, C. *Government operation of American railroads.* Ann. Am. Acad., Mar., 1918. Pp. 27. Critical analysis of the railroad control bill.
- WALKER, R. *Government operation of railroads: legal aspects.* Ry. Age, Apr. 5, 1918. Pp. 3.
- WATKINS, E. *Status of existing railroad laws and regulative agencies under federal control.* Ann. Am. Acad., Mar., 1918. Pp. 4.
- WHALING, H. B. *Has the importance of federal valuation of railroads been increased or lessened by federal control of operation?* Ann. Am. Acad., Mar., 1918. Pp. 6. Recommends that valuation be carried to completion.
- WILCOX, D. F. *Precedents for private ownership and government operation of transportation facilities.* Ann. Am. Acad., Mar., 1918. Pp. 14. Both as regards steam railway operation in Europe and street railway operation in the United States.
- British railways under government control.* Annalist, Mar. 4, 1918. Pp. 3. London correspondence.
- China's greatest need today is transportation.* Ry. Age, Mar. 29, 1918. Pp. 6. With map and illustrations.
- First three months of government control.* Ry. Age, Apr. 5, 1918. Pp. 6. Review of government policies and orders relating to railway control.
- Form to be taken by new railroad financing.* Ry. Age, Feb. 1, 1918. Pp. 3. Recommendations of the committee on railroad securities of the Investment Bankers' Association.
- "A free route to Persia and Afghanistan."* Ry. Age, Mar. 15, 1918. Pp. 4. Description of England's Sind-Pishin railway, built to protect her Indian frontier.
- Government control of transportation.* Journ. Pol. Econ., Mar., 1918. Pp. 3. Analysis of the railroad control bill.
- The imperial railways of Japan.* Far Eastern Rev. (Shanghai), Mar., 1918. Pp. 15. Illustrated story of their development.
- The Japanese operated railroads of Korea.* Ry. Age, Mar. 8, 1918. Pp. 5.
- The railroad wage hearings.* Railroad Trainman, Mar., 1918. Pp. 13. Digest of evidence on wages, cost of living, dietary, etc. of railway trainmen, presented by them before the Railroad Wage Commission.
- Railwaymen and the army.* Ry. Gazette (London), Feb. 22, 1918. Pp. 3. British railways have released 168,000 employees for military service.
- The railways of Great Britain after the war.* Ry. Age, Jan. 18, 1918. Pp. 2. Quoted from *The Engineer*, London.
- Report of the eight-hour day commission.* Ry. Age, Feb. 1, 1918. Pp. 2. Annual wage increase due to Adamson law estimated at \$61,000,000. Necessity of overtime work upheld.

The trans-continental railway of Australia. Ry. Age, Feb. 1, 1918. Pp. 3. Illustrated.

United States Railroad Administration's freight car equipment standards. Ry. Rev., Mar. 30, Apr. 6, 1918. Pp. 10, 4. With diagrams.

Commerce

(Abstracts by H. R. Tosdal)

- ADAMS, A. E. *Price-fixing protecting the civilian at the expense of the soldier.* Bankers Mag., Mar., 1918. Pp. 15. An argument against governmental price fixing on the grounds that it is opposed to economic laws, that it fails to speed up production, and that it has been adopted mainly in order to save civilians the discomfort of the high prices, high taxes, and hard work which are necessary accompaniments of effective maintenance of war operations.
- ANDERSON, B. M. *War year rise in home trade nearly 40 per cent.* Annalist, Jan. 7, 1918. Estimates rise of domestic trade to over 68 billions. Urges necessity of curtailing production especially of non-essentials.
- CULBERTSON, W. S. *The skeleton in our foreign trade closet.* Nation's Business, Mar., 1918. Pp. 2. Favors legalization of export combinations as part of our preparation for progress in foreign markets after the war.
- DAVENPORT, H. J. *A cold shower for American financial optimism.* Annalist, Dec. 24, 1917. Pp. 2. Presents in a forcible manner the necessity for conservation of resources, elimination of wastes, and argues that raising 20 billions per year is outside the bounds of possibility.
- FLEMING, R. D. *Regulation of exports.* Modern Business, Oct.-Dec., 1917. Pp. 15. Outline of restrictions placed upon export trade of the United States, the reasons therefor, the machinery of operation, and the probable outcome.
- HALL, R. O. *American business in China.* Modern Business, Oct.-Dec., 1917. Pp. 14. Asserts that in view of goodwill of Chinese toward Americans and the diversity of Chinese products, there are great opportunities for development of our foreign trade.
- HEILMAN, R. E. *What's the remedy for diminishing profits?* System, Feb., 1918. Pp. 5. Considers increase in rate of turnover as a means of avoiding diminishing profits due to increasing costs of doing business, government regulation of prices and other factors. Elasticity and inelasticity of demand in their relation to turnover.
- JACOBSEN, J. C. *Interskandinavisk Handelspolitik.* Nat. Ok. Tids., Nov.-Dec., 1917. Pp. 32. A historical sketch of the inter-Scandinavian commercial relations down to the more recent agreements during the present war.
- KUNZ, G. F. *Platinum: its history and its present place in industry and the arts.* Econ. World, Jan. 12, 1918. Pp. 2. Statistical tables show production, consumption and prices.
- MARTIN, A. R. *Commercial and economic aspects of the cotton markets in 1917.* Econ. World, Feb. 9, 1918. Pp. 3. Reprint of market review from

London Times which states that with respect to prices and dislocation of traditional methods and practices in distribution, 1917 was an *annus mirabilis*.

MARTIN, P. F. *Trade openings in Latin America*. Finan. Rev. Rev., Dec., 1917. Pp. 16. A study of Latin-American trade possibilities from the point of view of the British trader, taking up particularly Argentine, Brazil, Chile, and Bolivia.

METZ, S. *Our opportunities in South America*. Guaranty News, Mar., 1918. Pp. 7. Emphasizes opportunities in South American trade and the necessity for adequate banking facilities especially to finance industrial enterprises.

MURPHY, E. R. *The biggest market in the world*. System, Feb., 1918. Pp. 2. Brief discussion of methods of advertising and selling in the Chinese market.

NOTZ, W. *Export trade problems and an American foreign trade policy*. Journ. Pol. Econ., Feb., 1918. Pp. 20. After a brief sketch of the activities of foreign countries, especially France and England, in developing export trade during the war, author shows sudden change in attitude of United States toward foreign trade, and proceeds to a discussion of the inadequacy of the present state of the law affecting international commercial disputes.

PAYEN, E. *Le platine: sa production, son marché et ses prix*. L'Econ. Franç., Mar. 2, 1918. Pp. 2. Statistical study showing that the world production of platinum has declined to less than half and that prices have increased two and one half times since 1913.

PAYEN, E. *Les restrictions des denrées alimentaires dans les divers pays d'Europe*. L'Econ. Franç., Dec. 8, 1917. Pp. 2. Gives salient facts as to regulation of the consumption of foodstuffs in various European countries.

SISSON, F. H. *America's foreign trade as a national support during and after the war*. Econ. World, Jan., 1918. Pp. 4. Urges need of overcoming our shortcomings and providing facilities for foreign trade if we are successfully to meet the competition of other nations after the war.

W., C. R. *State rules as to restrictions on resale price*. Yale Law Journ., Jan., 1918. Pp. 5. The New Jersey decision, *Ingersoll v. Hahne*, which upheld fixation of prices by the manufacturer, discussed with special reference to its relation to conflicting federal court decisions on the point. Concludes that the state court has the power to decide contrary to precedents in the federal courts.

W., W. C. *The essential conditions of foreign trade*. Bull. Pan. Am. Union, Feb., 1918. Asserts that successful exporting rests upon three foundations, namely raw material and man power, industrial development, and home consumption.

Address of Irving T. Bush on War Port Board. Mo. Bull. Chamber of Commerce, Dec., 1917. Pp. 6. Gives an account of the work of the War Port Board and the problems to be solved in order to prevent congestion.

Free port benefits urged for New York. Annalist, Jan. 14, 1918. P. 1. Brief

report of opinions expressed in hearings before United States Tariff Commission on plan to make New York a free port.

The international coal trade of the world. Econ. World, Jan. 26, 1918. Pp. 2. Reprint of a bulletin of the National City Bank of New York in the international coal trade.

Latin American foreign trade as affected by the war. Bull. Pan Am. Union, Jan., 1918. Since Europe has become more efficient through the war, the United States must increase its efficiency in South American trade in order to retain or improve its relative position.

The organization of the sample trade in grain in Minnesota. Intern. Rev. Agri. Econ., Nov., 1917. Pp. 7. Explains the organization and functioning of Minnesota agencies for the sampling, inspection, and grading of grain.

Ports francs et zones franches. L'Econ. Moderne, Nov. 27, 1917. Pp. 3. Argument against proposal to establish free ports or free zones with a view to furthering export trade in French wines.

Probable effects of establishment of a "free port." Greater N. Y., Feb. 18, 1918. Results of an inquiry made for the United States Tariff Commission into the opinion of the members of the Merchants' Association of New York as to the probable effects of the establishment of a free zone, the nature of the facilities required, and their operation.

Will protest against the British trademark bill. Greater N. Y., Jan. 14, 1918. Pp. 2. Protest of Merchants' Association of New York against proposed amendment to British trade-marks act, which, it is alleged, would result in impairment of property of American citizens in trade names.

World trade competition requires "free ports." Greater N. Y., Jan. 14, 1918. Pp. 5. Address by an officer of the Merchants' Association of New York describing the nature and advantages of free ports, showing why the bonded warehouse system has proved unsatisfactory and how New York City would benefit from being made a free port.

Accounting

(Abstracts by Martin J. Shugrue)

ANDREWS, H. P. *Standardization of cost-keeping methods for shipyards.* Pacific Shipping Illus., Feb., 1918. Pp. 14. One of a series begun in the December issue. Covers the establishing of productive order numbers, non-productive order numbers, and fundamental data necessary in bringing about standardized cost-keeping methods. Other issues will take up such points as indexing and filing and the distribution of overhead expense and general cost-keeping.

BASSET, W. R. *What is "good will" worth?* System, Apr., 1918. Pp. 3. Just what goodwill really is and an explanation and illustration of how to figure its true value.

BEAUMONT, H. *Accounting system for law offices.* Case & Comment, Feb., 1918. Pp. 4. Explains and illustrates forms of a system used by author.

BENTLEY, A. *Defects of title 2 of the federal revenue act, 1917.* Journ. Ac-

- count., Feb., 1918. Pp. 10. Criticises defects in connection with the preparation of tax returns, and the interpretation of the act for this purpose, and also points out inequalities and discrimination in the application of the tax to the different classes of taxpayers.
- CHASE, H. S. *Accounting for the liberty loans. (The first loan.)* Journ. Account., Jan., 1918. Pp. 10. The intricacy and difficulty of establishing a system of accounting controls over a tremendous multitude of details and many unforeseen requirements.
- CHASE, H. S. *Accounting for the liberty loans. (The second loan.)* Journ. Account., Feb., 1918. Pp. 10. The serious difficulties encountered by the twelve federal reserve banks and by the United States Treasury Department in handling the first liberty loan led to a thoroughly developed procedure which made it possible to handle the records for the second loan most efficiently.
- CLERK, J. M. *The problem of depreciation.* Ry. Age, Jan. 18, 1918. Pp. 2. Criticism of article by G. C. Hand in December 7 issue. Basis of regulation and basis of accounting are not "value" in the commercial sense and whole problem of "fair value" can never be simple.
- GAUSE, E. C. *Relation between interest and manufacturing cost.* Journ. Account., Mar., 1918. Pp. 3. Summary of arguments in support of reasons for not including interests in manufacturing costs.
- HILTON, E. D. *Determination of selling price.* Journ. Account., Jan., 1918. Pp. 7. A reply to a pamphlet entitled "The Mistake of Cost plus Profit in Determining Selling Price," by H. Emerson.
- II., T. P. *"Going value" in rate regulation.* Yale Law Journ., Jan., 1918. Pp. 3. Recent California case raises in an interesting form the much disputed question when or to what extent "going value" is value upon which a public utility is entitled to base its rates.
- McKAY, C. W. *Intangible values and war tax.* Indus. Management, Feb., 1918. Pp. 5. Analysis by means of illustrations of the war tax on business to show how important are the problems surrounding the determination of intangible assets. Explains method established by an Iowa court for determining the monetary equivalent of these assets.
- MAMBERT, S. B. *Dwindling cash and growing book profits.* Annalist, Dec 31, 1917. Pp. 21. Under present conditions greater dependence should be placed in the relation of (1) cash received, (2) cash disbursed, (3) cash in bank, as a gauge of business conditions than in any book account such as net worth, surplus, or profit and loss.
- SAXE, M. *Net earnings rule in special franchise taxation.* Journ. Account., Jan., 1918. Pp. 10. Explains by concrete example the method of computing the special franchise tax applicable to public utilities using highways in the state of New York.
- SEIDMAN, F. E. *Overhead distribution for cost-plus contracts.* Journ. Account., Mar., 1918. Pp. 15. Some important problems that present themselves in determining the overhead applicable to a cost-plus contract, and

their solution. Illustration of a company owning and operating three plants and engaged in work on (1) army contracts, (2) navy contracts and (3) its own products.

SCHACKMANN, J. H. *Cash discounts*. Journ. Account., Jan., 1918. Pp. 4. Cash discount taken is neither other income nor a reduction in the invoice cost of the goods sold during the period.

THULIN, F. *Profit earned and profit collected*. Journ. Account., Jan., 1918. Pp. 9. Uncollected profits should be distinguished from the collected profits in the books of account, wherever such distinction can be practically observed.

Accounting for interest and taxes. Journ. Am. Water Works Assoc., Mar., 1918. Pp. 3. Informal discussion at Richmond convention, May 10, 1917, on matter of proper accounting treatment of interest and taxes for water works plants.

Analyzing bank accounts. Pace Student, Feb., 1918. Pp. 3. Extract of instructions issued by the Federal Reserve Bank of New York as to a short method of analyzing and determining the profit or loss on a depositor's account.

Investments

(Abstracts by Arthur S. Dewing)

BARRON, M. L. *State regulation of the securities of railroads and public service commission*. Ann. Am. Acad., Mar., 1918. An able study from first-hand material covering all states having public utility regulations. Valuable and comprehensive corporation statistics.

HALSEY, F. M. *War's effect on American and British security markets compared*. Trust Companies, Dec., 1917. An extremely able statistical article, without many general conclusions. Both have declined about the same proportionately, but British decline more gradual.

STAAKS, W. *Appeal of the short-term note*. Invest. Wkly., Jan. 26, 1918. Citing numerous cases, short-term notes show very high yield.

STAAKS, W. *Bond values—a contrast*. Invest. Wkly., Dec. 29, 1917. Estimates the shrinkage of American securities since high of 1916, as ten billions of dollars. High-grade bonds, especially railroad, show greatest relative decline.

STAAKS, W. *The equipment companies—an industrial group that will benefit perhaps more than any other by the return of peace*. Invest. Wkly., Feb. 9, 1918. Suggests that these will reap large profits through the necessary rehabilitation of the railroads' rolling stock. Gives interesting and valuable corporation statistics.

STAAKS, W. *The fertilizer companies—the commanding units in an industry apparently on the verge of great development and prosperity*. Invest. Wkly., Feb. 16, 1918.

STAAKS, W. *Railroad securities under government control*. Invest. Wkly., Dec. 29, 1917. Gives brief review of British plan of railroad control.

THELEN, M. *Desirable scope and method of federal regulation of railroad securities.* Ann. Am. Acad., Mar., 1918. Would establish federal control similar to that exercised by the California public utilities act of 1912.

VANCE, R. *Should Liberty bonds be sold below par?* Invest. Wkly., Jan. 19, 1918. Answered in negative because of difficulty of conversion of previous issues.

WAGEL, S. R. *Effects of the war on security values in the United States.* Journ. Am. Bankers' Assoc., Feb., 1918. The high of 1917 was abnormal, especially among industrials, so that present decline is not as pronounced as extreme fluctuations would indicate.

The course of business on the London stock exchange in 1917. Econ. World, Feb. 16, 1918. Two pronounced features—decline of "Americans" and the rise of British industrial securities. Little change, and that decline, in British railroad securities. As a whole the decline—from 1914 to 1917—in fixed interest bearing securities has been checked.

The proposed war finance corporation. Invest. Wkly., Feb. 9, 1918. A criticism directed to show that such plan would destroy business of investment banking houses.

Report on recommendations—in relation to the supervision of capital issues. I. B. of A. Bull., Jan. 31, 1918. Recommends semi-official board created to supervise issue of a corporate and municipal financing.

Corporations and Trusts

(Abstracts by Arthur S. Dewing)

ADLER, E. A. *Monopolizing at common law and under section two of the Sherman act.* Harvard Law Rev., Dec., 1917. A plea for the strength of the old common law prohibitions, enforcement of which "from day to day would in most cases remedy the evils at their inception and the 'problem of the trusts' could never arise."

KALES, A. M. *Contracts to refrain from doing business or from entering or carrying on an occupation.* Harvard Law Rev., Dec., 1917. An exhaustive study with elaborate and extensive citations. Unfortunately conclusions somewhat vague.

KALES, A. M. *The Sherman act.* Harvard Law Rev., Jan., 1918. A remarkable, able, and intensive study of the Supreme Court's attitude toward several questions involved. Traces legal rather than economic current and does not attempt to prophesy concerning the Supreme Court's attitude toward doubtful questions now pending from the lower courts.

Public Utilities

(Abstracts by Ralph E. Heilman)

BALLARD, F. W. *The Cleveland electric rate case.* Utilities Mag., Feb., 1918. A review of the valuations conducted of the properties of the Cleveland Electric Illuminating Company, the rate decision of the Ohio Commission, and the city's protests against this decision, which are the basis of the proceedings now pending in the supreme court of Ohio.

- BRADFORD, E. A. *Public utilities as war utilities*. Annalist, Mar. 11, 1918. Local public utilities are in the same class as the railroads, as agencies to help win the war. The public should render assistance in order to maintain their credit.
- CONWAY, T. *Commission-made rates vs. franchise provisions*. Elec. Ry. Journ., Jan. 19, 1918. New York Public Service Commission for the Second District holds that it has full rate-making power in spite of maximum rates set by old laws or franchises.
- CRAVATH, J. R. *Practical features of street lighting contracts*. Elec. World, Oct. 13, 1917. Important principles to be observed in negotiations between utilities and municipalities, with particular reference to the establishment and maintenance of wholesome relations.
- JENKINS, W. C. *The plight of the tractions*. Invest. Wkly., Jan. 19, 1918. The effect of the high cost of operation upon traction companies which must continue to operate for a five-cent fare.
- LITTLE, A. S. B. *Should gas standards be revised to meet war conditions?* Utilities Mag., Nov., 1917. Discusses the question as to whether gas standards should be altered to permit large recovery of by-products.
- NASH, L. R. *Electric railway fare increases in United States and Canada*. Stone & Webster Journ., Feb., 1918. A schedule showing the increases in electric railway fares, local and inter-urban, which have been made in the United States between January 1, 1914, and December 31, 1917.
- THELEN, M. *Advantages of administrative tribunals in the determination of controversies*. Utilities Mag., Jan., 1918. Weaknesses of the courts, and advantages of utility commissions, as demonstrated by the results achieved by the California Railroad Commission.
- WHALING, H. B. *Public ownership of railway rights of way and terminal lands*. Utilities Mag., Feb., 1918. At present rate of appreciation, more than half the total value of railways will soon be "increment" and not investment. From this situation there are two possible exits: the investment theory of valuation, the land to be left in private hands; or the public may take over the right of way and terminal lands.
- WILCOX, D. F. *Recent developments in the public utility field affecting franchise policies and municipal ownership*. Nat. Munic. Rev., Mar., 1918. Report of the committee on franchises, of the National Municipal League, presented at Detroit, November 22, 1917. Discusses the difficulties arising out of the doctrine that a state public service commission has authority over the rates and services of local utilities.
- Commission approves zone system for Holyoke company*. Elec. Ry. Journ., Jan. 12, 1918. Massachusetts Public Service Commission approves plan permitting street railways to raise fares to 6 cents for rides in outer zone, with a central five-cent area.
- Constitutional barrier against fare rates*. Elec. Ry. Journ., Jan. 19, 1918. New York Public Service Commission for the First District holds that only a waiver by New York City of the 5-cent fare limitation which the city made

a condition of its consent, under the constitution, to the use of the streets, can enable the commission to change the rate.

Effects of war conditions on public utility service. Elec. Ry. Journ., Jan. 12, 1918. Results of the war upon cost and quality of public utility service—increases in the cost of labor, fuel, and new plant, increased taxes, and decreased consumption.

Electric railway statistics. Aera, Mar., 1918. Comparison of the returns for 1916, with those of 1917. The claim is advanced that electric railways have been disastrously affected by rising costs.

Increased electric railway fares. Aera, Feb., Mar., 1918. A review of the movement to secure increased fares, throughout the United States. The efforts of street railway companies to discard the flat nickel fare, and reference to the cases in which this has been permitted by the regulating bodies.

Philadelphia partnership plan shows foresight. Elec. Ry. Journ., Jan. 26, 1918. A lease has been approved by the city of Philadelphia for the operation of the municipally owned rapid transit lines by the Philadelphia Rapid Transit Company. It provides for a five per cent return on the capital stock of the company, and on the investment of the city, and is accompanied by an adjustable fare.

Public control; guaranteed dividend higher fare. Elec. Ry. Journ., Feb. 9, 1918. Massachusetts Public Service Commission recommends to the Legislature a plan for the rehabilitation of the Boston Elevated Railway. It is proposed that the property be placed in the hands of trustees representing the public, the municipalities served to guarantee dividends.

Raising the fare from seven to ten cents at the public's request. Elec. Ry. Journ., Mar. 9, 1918. Approval of the request for a higher rate of fare, by the communities served by the Worcester and Warren Street Railway (Mass.). An example of better relations between a utility and its users.

Report on rapid transit system for Detroit. Elec. Ry. Journ., Mar. 2, 1918. The report of Barclay Parsons and Klapp, New York, recommends a combined subway and elevated railway system to be operated by the Detroit United Railway. It recommends a partnership arrangement between the city and the company, a division of earnings, and a flexible fare.

Zone system best for the Rhode Island company. Elec. Ry. Journ., Mar. 23, 1918. Special commission appointed by the legislature recommends a modified zone system including central five-cent areas and additional two-cent zones.

Labor and Labor Organizations

(Abstracts by George E. Barnett)

ADAMS, N. C. *Wages and hours of labor in the iron and steel industry, September, 1917, compared with May, 1915.* Mo. Rev. U. S. Bur. Labor Stat., Mar., 1918. Pp. 24.

BELLOM, M. *Le préapprentissage.* Réf. Soc., Feb., 1918. Pp. 12. Deals with the functions and methods of instruction preparatory to apprenticeship.

- BROOKS, F. W. *Women as substitutes for men employes.* Aera, Oct., 1917. Pp. 7. Opinions of railway managers in Great Britain and Italy.
- BROWN, W. J. *The judicial regulation of industrial conditions.* Yale Law Journ., Feb., 1918. Pp. 21.
- BUTILLARD, MILLE. *La main-d'oeuvre feminine.* Réf. Soc., Nov., 1917. Pp. 11. The problem of women's labor after the war.
- CABIATI, A. *Un problema del dopo-guerra: i salari a premio e l'organizzazione scientifica del lavoro.* Rif. Soc., Nov.-Dec., 1917. Pp. 31. Scientific management and premium systems of wage payment critically studied as devices of presumptive utility after the war.
- CANNAN, E. *Industrial unrest.* Econ. Journ., Dec., 1917. Pp. 17. An analysis of the report of the Commission of Enquiry.
- CHANDLER, W. L. *The employees' benefit association.* Indus. Management, Jan., Feb., 1918. Pp. 5, 8. The point of view is that of a labor manager.
- CHANNEY, L. W. *Trend of accident frequency rates in the iron and steel industry during the war period, by causes.* Mo. Rev. U. S. Bur. Labor Stat., Dec., 1917. Pp. 7.
- CLARK, W. I. *The protection of the health of the worker in war.* Am. Medical Assoc. Journ., Oct. 6, 1917. Pp. 6.
- COMSTOCK, L. K. *Raising wages with cost of living.* Elec. World, Mar. 16, 23, 1918. Pp. 2, 3. Suggests the periodic readjustment of wages according to the commodity index numbers.
- CUTLER, R. W. *Physical examination of factory employees: two thousand consecutive cases and the defects found.* Boston Medical and Surgical Journ., Nov. 1, 1917. Pp. 5.
- DOUGLAS, P. H. *The problem of labor turnover.* Am. Econ. Rev., June, 1918. Pp. 14.
- EDSALL, D. L. *The study of occupational disease in hospitals.* Mo. Rev. U. S. Bureau Labor Stat., Dec., 1917. Pp. 26. Describes the methods of the industrial clinic of the Massachusetts General Hospital.
- EMMET, B. *Trade agreements in the women's clothing industries in New York City; Philadelphia; Chicago; Cincinnati and St. Louis.* Mo. Rev. U. S. Bureau Labor Stat., Dec., 1917, Jan., Feb., Mar., 1918. Pp. 21, 13, 11, 6.
- EMMET, B. *Extent of profit-sharing in the United States; its bearing on industrial unrest.* Journ. Pol. Econ., Dec., 1917. Pp. 14. Concludes that "profit-sharing not related directly to individual efficiency does not pay."
- FITCH, J. A. *Stretching the pay envelope.* Survey, Jan. 12, 1918. Pp. 3. Describes forms of wage increases adopted by a number of employers.
- FURUSETH, A. *Sea service.* Am. Federationist, Feb., 1918. Pp. 7. Discusses the question of securing an adequate supply of seamen.
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- GREEN, F. E. *Agriculture and the minimum wage*. Nineteenth Cent., Sept., 1917. A minimum of 30s. is advocated.
- HOAGLAND, H. E. *Wage bargaining on the vessels of the Great Lakes*. Univ. of Ill. Studies in the Soc. Sci., Oct., 1917. An account of labor organization, trade agreements, and struggles over the question of the closed shop.
- HYDE, E. A. *Social betterment work among employees' families*. Mo. Rev. U. S. Bureau Labor Stat., Jan., 1918. Pp. 11.
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- MACKEY, B. *The soldier, the worker, and the land's resources*. Mo. Rev. U. S. Bureau Labor Stat., Jan., 1918. Pp. 9.
- MAYLANDER, A. *Wages in Germany*. Mo. Rev. U. S. Bureau Labor Stat., Dec., 1917. Pp. 11. Summary of articles and notes in *Vorwärts*.
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- REITELL, C. *Mechanical evolution and changing labor types*. Journ. Pol. Econ., Mar., 1918. Pp. 16. Machinery in the open-hearth steel industry has made necessary a higher type of workman.
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- STECKER, M. L. *The founders, the molders, and the molding machine*. Quart. Journ. Econ., Feb., 1918. Pp. 29. Describes the policies of the union and the employers' association with reference to the introduction of the machine.
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- TEAD, O. *The war's effects on English trade unions*. Journ. Pol. Econ., Feb., 1918. Pp. 11. Greater local autonomy, wider federations, the reconstruc-

tion of the labor party, and a definite program for the organization of industry are the chief effects.

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Extension of the employment of women. Labour Gaz., Feb., 1918. Pp. 2.

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Labor war aims. New Repub., Mar., 1918. Pp. 6. Full text of the agreement on war aims adopted by the Inter-Allied Labor and Socialist Conference in London.

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Report of President's mediation commission. Mo. Rev. U. S. Bureau Labor Stat., Mar., 1918. Pp. 9.

Review of labor legislation of 1917. Am. Labor Legis. Rev., Sept., 1917. Pp. 88.

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Wages and cost of living in France. Mo. Rev. U. S. Bureau Labor Stat., Jan., 1918. Pp. 7.

Money, Prices, Credit, and Banking

(Abstracts by Chester A. Phillips)

AGGER, E. E. *Our large change: the denominations of the currency.* Quart. Journ. Econ., Feb., 1918. Pp. 20. A historical and critical account covering the period since 1860.

- ANDERSON, B. M. *Harder work with a tightening of the belt.* Annalist, Feb. 4, 1918. Pp. 2. Gold has proved, during the war, a reasonably stable measure of values. Rising commodity prices are due to scarcity.
- ARIAS, G. *Osservazioni sull' incremento dei depositi durante la guerra.* Riv. di Sci. Banc., Oct.-Nov., 1917. Pp. 9.
- BRADFORD, E. A. *An American substitute for "bread wages."* Annalist, Jan. 28, 1918. Pp. 2. Urges wage bonuses adjusted to the rising cost of living.
- BRADY, J. E. *Acceptances, rediscounts, etc., under section 13 of the federal reserve act.* Banking Law Journ., Dec., 1917. Pp. 10. An analysis of Section 13, as construed by the ruling of the Federal Reserve Board.
- BRADY, J. E. *Acceptances, rediscounts, etc., under the federal reserve act.* Banking Law Journ., Jan., Feb., 1918. Pp. 4, 5.
- DOUCET, R. *Le fonctionnement du cheque postal.* Le Monde Econ., Jan., 1918. Pp. 3.
- FISHER, I. *A compensated sovereign.* Sociol. Rev., Autumn, 1917. Pp. 3.
- FOXWELL, H. S. *The financing of industry and trade.* Econ. Journ., Dec., 1917. Pp. 21. A criticism of English financial, as distinguished from banking, institutions in the light of continental experience and examples.
- GARIANI, A. *Economia e movimento bancario in Germania nei primi tre anni di guerra.* Riv. d. Sci. Banca, Aug.-Sept., 1917. Pp. 15.
- HAMILTON, C. J. *Recent problems of Indian currency and exchange.* Bengal Econ. Journ., Jan., 1918. Pp. 21.
- HERRICK, M. T. *One year of the federal loan system.* Journ. Am. Bankers' Assoc., Mar., 1918. Pp. 3. Criticism of heavy government purchases of federal farm loan bonds.
- HOLLAND-MARTIN, R. *The work of the London Bankers' Clearing House during the year 1917.* Journ. Inst. Bankers, Feb., 1918. Pp. 13. A record of unprecedented clearings.
- KEMMERER, E. W. *Inflation.* Am. Econ. Rev., June, 1918. Pp. 23.
- LEADER, R. E. *The early Sheffield bankers.* Journ. Inst. Bankers, Jan., 1918. Pp. 15.
- MIDDLEDITCH, L. *Should accounts reflect the changing value of the dollar?* Journ. Account., Feb., 1918. Pp. 8. The addition of a few adjusting accounts would serve to set forth the significance of the fluctuating value of the monetary unit to the accountant and business concern.
- MOULTON, H. G. *The surplus in commercial banking.* Journ. Pol. Econ., Dec., 1917. Pp. 16. Criticises the popular conception of the nature and significance of bank surplus and contends that the accumulation of a surplus does not ordinarily strengthen the security of the bank's creditors.
- DE NOUVION, G. *Le papier-monnaie de la révolution.* Journ. des Econ., Nov., 1917. Pp. 12. Replete with dates and details of issues.
- PAYEN, E. *L'or dans le monde en 1917.* L'Econ. Franç., Mar. 9, 1918. Pp. 2.

- PIGOU, A. C. *Inflation*. Econ. Journ., Dec., 1917. Pp. 8. The meaning of inflation and the extent to which wartime inflation in England has been due to modifications in English monetary and banking arrangements.
- PISTOLESE, L. *Lo check postale*. Riv. di Sci. Banc., Oct.-Nov., 1917. Pp. 20. Reasons for the desirability of extension in the use of postal money orders after the war.
- REED, H. L. *Credit expansion under the federal reserve*. Am. Econ. Rev., June, 1918. Pp. 13.
- ROELSE, H. V. *Wholesale prices in the United States, 1791-1801*. Quart. Pubs. Stat. Assoc., Dec., 1917. Pp. 7. Of value in throwing light upon changes in the general price level in United States, 1790-1800, a decade of rapidly rising prices.
- SHAFROTH, J. F. *A move for international bimetalism*. Annalist, Jan. 7, 1918. Pp. 2. Urges the adoption of international bimetalism in order to avoid the risk of repudiation in belligerent countries of Europe.
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- TINNES, D. J. *The market gage dollar*. Quart. Journ. Univ. of N. D., Jan., 1917. Pp. 6. A plan to stabilize the purchasing power of the dollar.
- WAGEL, S. R. *Reasons for making the dollar the world's monetary unit*. (Second article) Journ. Am. Bankers' Assoc., Feb., 1918. Pp. 4.
- WELTON, A. D. *Development of problems incident to the use of the trade acceptance*. Journ. Am. Bankers' Assoc., Feb., 1918. Pp. 5. The introduction of the system of trade acceptances has not altered the bases of bank credits.
- WHITNEY, T. T. *Acceptances*. Stone & Webster Journ., Jan., 1918. Pp. 6. A summary discussion with special reference to acceptances in United States.
- WICKSELL, K. and TAUSSIG, F. W. *International freights and prices*. Quart. Journ. Econ., Feb., 1918. Pp. 10. The effects of changes in ocean freight rates on international trade and international borrowing.
- The activity of the Peasants' Land Bank*. Inter. Rev. of Agric. Econ., Oct., 1917. Pp. 17. A statistical account of the lending operations of the Peasants' Land Bank of Russia.
- La Banque de France en 1917*. L'Econ. Franç., Feb. 23, 1918. Pp. 3. The work of the Bank of France in support of industry and finance at home and in relation to foreign trade and exchange.
- La Banque de France. Le renouvellement de son privilège*. L'Econ. Franç., Dec. 22, 1917. Pp. 3. Favorable appraisal of the services of the bank.
- Federal reserve banks now earning their dividends and accumulating a surplus*. Journ. Am. Bankers' Assoc., Feb., 1918. Pp. 3.
- Indian currency in 1916-17*. Wealth of India, Nov., 1917. Pp. 5.

- The progress of banking in Great Britain and Ireland during 1917.* No. 2. *The Increase in the number of banking offices opened.* Bankers' Ins. Managers' and Agents' Mag., Feb., 1918. Pp. 32.
- Stabilizing exchange and holding gold.* Annalist, Jan. 21, 1918. Pp. 2. Arrangements made with Argentina are intended to equalize unfavorable trade balances without the exportation of gold and to effect an appreciable saving in exchange to our importers of Argentine products.
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- Statistiska meddelanden.* Ek. Tids., Dec., 1917. Pp. 8. A statistical summary of the financial condition of the principal banks of Sweden Nov. 30, 1917; weekly reports of the Swedish, Norwegian, Danish, English, and French banks and also of the German Reichsbank during parts of November and December.

Public Finance

(Abstracts by Charles P. Huse)

- BROWN, A. O. *Taxation as a factor in New Hampshire forestry.* Bull. Nat. Tax Assoc., Jan., 1918. Pp. 6. Taxation is not responsible for timber cutting, in the opinion of the chairman of the New Hampshire State Tax Commission.
- CLAPHAM, J. H. *Loans and subsidies in time of war.* Econ. Journ., Dec., 1917. Pp. 7. An interesting review of England's loans and subsidies to her allies from 1793 to 1914 shows that the subsidy has been generally preferred to the loan.
- CLARKE, P. N. *Tax reform in Kentucky.* Bull. Nat. Tax Assoc., Jan., 1918. Pp. 2. The legislature provided in 1917 for the classification of property for taxation, the separation of state and local revenues, and different tax rates on different classes of property.
- CHAMBERS, J. S. *California State Board of Authorization and the limitation of expenditure law.* Bull. Nat. Tax Assoc., Jan., 1918. Pp. 5. Explains the new methods by which it is hoped to control county expenditures.
- CURRIE, G. W. *Double tax within the Empire.* Scottish Bankers' Mag., Jan., 1918. Pp. 7. Discusses the advisability of relief in case of incomes taxed both by England and her colonies.
- D. D. *Krigskonjunkturskatten och prisnivans stegring.* Ek. Tids., Dec., 1917. Pp. 4. An analysis of the Swedish excess profits tax.
- DAVIES, W. S. *Suggestions for assessment of excess profits.* Journ. Account., Jan., 1918. Pp. 6. Recommendations to the Treasury Department by the president of the American Institute of Accountants.

- EISNER, M. *An official explanation of the federal income tax law in connection with real estate investments.* Econ. World, Jan. 19, 1918. Pp. 2. Considers such matters as the determination of gains, losses, and depreciation.
- FERTIG, J. H. *Pennsylvania tax legislation of 1917.* Bull. Nat. Tax Assoc., Jan., 1918. Pp. 2. A tax on direct inheritance will increase the revenues of the state about \$6,000,000 a year.
- GRUENBERG, F. P. *The executive vs. the legislative budget.* Nat. Munic. Rev., Mar., 1918. Pp. 7. A critical review of a discussion led by Drs. Cleveland and Fitzpatrick at the annual meeting of the National Municipal League.
- GUYOT, Y. *Les emprunts.* Journ. des Econ., Nov. 15, 1918. Pp. 14. Discusses the principles involved in fixing the various terms of public loans.
- GUYOT, Y. *Le projet de budget de 1918.* Journ. des Econ., Dec., 1917. Reviews the finances of France since 1914 and gives the budget plan for 1918.
- HAMILTON, M. B. *1917 ars kommuneskattforslag.* Ek. Tids., Dec., 1917. Pp. 19. A critical analysis of the proposed Swedish communal tax law.
- HEISS, C. A. *Distributing the financial burden of the war.* Bull. Nat. Tax Assoc., Dec., 1917. Pp. 8. By the end of the second year of the war the United States should meet from taxation at least one half the current cost of the war.
- HINMAN, G. E. *Legal phases of state income taxation of miscellaneous corporations.* Bull. Nat. Tax Assoc., Dec., 1917. Pp. 5. Discusses the Wisconsin income tax and other cases.
- HOLDEN, SIR E. *War time finance in Germany, the United States, and Great Britain.* Econ. World, Mar. 9, 1918. Pp. 2. Makes in this concluding article a critical examination of the federal reserve system and the liberty loans.
- HOLMES, G. E. *Income tax problems of the fiduciary.* Trust Companies, Feb., 1918. Pp. 3. Explains the relation of the trustee to the income tax.
- JEZE, G. *Les finances de guerre de l'Angleterre.* Rev. Sci. Légis. Finan., Dec., 1917. Pp. 85. Continues a critical study of the methods of legislative control of public expenditures in England.
- JEZE, G. *Les finances de guerre de la France.* Rev. Sci. Légis. Finan., Dec., 1917. Pp. 76. A study of the financial policy followed by the French government in 1915 and 1916 leads to the conclusion that heavier taxes should have been employed.
- K., J. M. *New taxation in the United States.* Econ. Journ., Dec., 1917. Pp. 5. An English writer commends the taxation policy of the United States but points out that it is still much less severe than the British.
- MALBURN, W. P. *Is a stock dividend on earnings income?* Annalist, Feb. 11, 1918. Pp. 2. Argues against the recent decision of the Supreme Court that stock dividends are not income.
- PASKUS, B. G. *Theoretical and practical anomalies of the present war excess profits tax law.* Econ. World, Jan. 5, 1918. Pp. 2. Points out anomalies and compares with the English tax.

- RAFFALOVICH, A. *La situation financière de l'Autriche-Hongrie*. L'Econ. Franç., Jan., 1918. Pp. 3. The financing of the war, the over-issue of notes and the relations of the Bank of Austro-Hungary to the dual monarchy.
- RAFFALOVICH, A. *Le contrôle des dépenses publiques en Angleterre*. Journ. des Econ., Dec., 1917. Pp. 13. A critical account of the methods adopted by England to prevent waste.
- ROBERSON, F. *The county assessor's relation and duty towards taxation*. Bull. Nat. Tax Assoc., Mar., 1918. Pp. 4. Recommends that the assessor be trained, well paid, and removed from the field of politics.
- SCHELLE, G. *Les finances de la Ville de Paris*. Journ. des Econ., Dec., 1917. Pp. 12. An account of the finances of Paris in war time.
- SCHUYLER, R. L. *The abolition of British imperial preference, 1846-1860*. Pol. Sci. Quart., Mar., 1918. Pp. 16. The abolition of tariff preferences for colonial goods came near to dissolving the British Empire.
- SELIGMAN, E. R. A. *The war revenue act*. Pol. Sci. Quart., Mar., 1918. Pp. 37. A critical survey of the act with a brief history of tax laws since 1909 and comparisons with the war policies of other countries.
- TAKASHIMA, S. *Emergency financial measures of Japan*. Journ. Pol. Econ., Mar., 1918. Pp. 6. Points out many similarities between the financial policies of Japan and the United States.
- Analysis of excess profits tax*. I. B. A. of A. Bull., Mar. 8, 1918. Prepared by counsel for the convenience of members of the Investment Bankers' Association.
- Constitutional uniformity in taxation*. Bull. Nat. Tax Assoc., Mar., 1918. Pp. 4. Gives the opinion of the court in a recent Ohio decision relating to mortgage exemption.
- Financing the war*. Ann. Am. Acad., Jan., 1918. Pp. 221. Contains twenty-one articles by prominent students of finance and government officials on the theory of war finance and the financial experiences of Russia, France, Italy, and the United States.
- How Germany has financed the war*. Annalist, Mar. 18, 1918. Pp. 2. Extracts from the annual report of Sir E. H. Holden, chairman of the London City and Midland Bank.
- Les finances de la Ville de Paris*. L'Econ. Franç., Jan. 5, 1918. Pp. 3. The chief problem lies in the heavy floating debt resulting from war burdens.
- Mayor's advisory commission on administration of the tax law, report*. City Record, Dec. 20, 1917. Pp. 21.
- The school bond question in California; illustrated by the situation in Oakland*. California Taxpayers' Journ., Sept., 1917. Pp. 13.

Population and Migration

(Abstracts by A. B. Wolfe)

- BALDUCCI, G. *Costuzione e critica delle tavole di mortalità*. Giorn. d Econ., Dec., 1917. Pp. 30.

- BERNONVILLE, L. DUGE DE. *Enquête sur les conditions de la vie ouvrière et rural en France en 1913-14* (3^e partie: dépeuplement des campagnes; 4^e partie: formation professionnelle; 5^e partie: invalidité). *Period. Bull. de la Stat. Gen. de la France*, Apr., 1917.
- BIDWELL, P. W. *Population growth in southern New England, 1810-1860*. *Quart. Pub. Am. Stat. Assoc.*, Dec., 1917. A study of population growth in a small area. Most of the increase was due to the growth of towns and was stimulated by the rise of New England manufacturers following the decline of commerce, 1807-1816.
- CANTELLI, F. P. *Sull' aumento di mortalità dovuto alla guerra*. *Giorn. d. Econ.*, Nov., 1917. Pp. 13. A critical study in statistical method dealing with several writings on the relations of war and mortality.
- CRUM, F. S. *Mortality prevention and reduction*. *Am. Underwriter*, Jan., 1918. Pp. 8. A brief review of the declining mortality from the leading diseases in the United States and of the agencies which have helped to bring it about.
- GIUFFRIDA-RUGGERI, V. *Un quadro sinottico delle popolazioni della Regione Eritreo-Abissina*. *Riv. Ital. di Sociol.*, Mar.-June, 1917.
- GULICK, S. L. *A comprehensive immigration policy and program*. *Sci. Mo.*, Mar., 1918. Pp. 11. A new statement of Dr. Gulick's well known views.
- HANIHARA, M. *The Japanese question in the United States—the facts of the case*. *Econ. World*, Mar. 23, 1918. Pp. 3. Contains up-to-date statistics on arrivals and departures, and number of Japanese in this country, based on Japanese consulate records.
- HOWE, F. C. *Neutra futura politica immigratoria*. *Inter America*, Sept., 1917.
- MALLET, SIR B. *Vital statistics as affected by the war*. *Journ. Royal Stat. Soc.*, Jan., 1918. Pp. 36. A review of the vital statistics of England and Wales, Scotland and Ireland since 1914. Reveals the fact that the United Kingdom has suffered far less decline in marriages and births than Germany and Austria. Interesting data concerning infant mortality, illegitimate births, sex ratio at birth, suicide rate, etc.
- MILNES, N. *Some aspects of the infant welfare question*. *Sociol. Rev.*, Autumn, 1917. Pp. 8. Shows, on the basis of certain East London data, a high inverse correlation between infant mortality, on the one hand, and time between births, per capita rent paid, and number of persons per room.
- STOCK, C. S. *Emigration*. *Eugenics Rev.*, Jan., 1918. Pp. 18. A review of the desirability of emigration to the British colonies, and the agencies by which it may be encouraged.

Insurance and Pensions

(Abstracts by Henry J. Harris)

- DOWNNEY, E. H. *The making of rates for workmen's compensation insurance*. *Journ. Pol. Econ.*, Dec., 1917. Pp. 22. Methods and formulas for rates.

Even though at present not entirely satisfactory, excellent progress has been made in the construction of rates.

- FISHER, A. *Note on the construction of mortality tables by the means of compound frequency curves.* Pro. Casualty, Actuarial & Stat. Soc. of Am., Oct. 31-Nov. 1, 1917. Pp. 23. Outline of a method of constructing a mortality table from records of death by age and cause, but without knowing the exposure at various ages. Extract from author's forthcoming *Mathematical Theory of Probabilities*, vol. 2.
- FRANKEL, L. K. *Insuring the working man.* Nation, Feb. 7 (supplement), 1918. P. 1. Advantages of group insurance.
- HALL, H. D. *The history and development of factory mutual fire insurance.* Econ. World, Mar. 23, 1918. Pp. 2. These mutuals have secured excellent results in prevention of fires; cost has been extremely low.
- HOOKESTADT, C. *Tendencies in workmen's compensation in the United States.* Mo. Rev. U. S. Bur. Lab. Stat., Dec., 1917. Pp. 5. There has been a tendency for the states to adopt the provisions of laws in neighboring states.
- IDE, G. E. *Governmental war insurance and war taxation.* Nation, Feb. 7 (supplement), 1918. Pp. 3. In some vital respects the measure is faulty.
- LAPP, J. A. *Scope of Ohio's health insurance investigation.* Ohio Pub. Health Journ., Feb., 1918. Pp. 3. Outline of proposed investigation under: health conditions; sickness insurance; old age insurance; special studies; special features; method of work.
- LATHROP, J. C. *The military and naval insurance act.* Nation, Feb. 7 (supplement), 1918. Pp. 2. Statement of the importance of the act in protecting the family of the soldier.
- LEHFELDT, R. A. *On life-tables.* Journ. Royal Stat. Soc., Jan., 1918. Pp. 13. Algebraic formulation of the data contained in a life table.
- MICHELbacher, G. F. *Manufacturers' and contractors' public liability insurance.* Pro. Casualty, Actuarial & Stat. Soc. of Am., Oct. 31-Nov. 1, 1917. Pp. 17. Premium bases, hazards, rates and cost; cost has been declining in recent years but will probably increase in future.
- OWEN, SIR D. *Marine insurance: some of its essential features and points of difference from fire insurance.* Econ. World, Dec. 29, 1917. Pp. 3. Development and present status of the policy of marine insurance in Great Britain.
- PAULIN, SIR D. P. *Some of the effects of the war on the British life insurance business.* Econ. World, Jan. 26, 1918. Pp. 5. The outstanding feature is the increase of investments in government loans; in 1913 it was less than 3 per cent, in 1916 it was estimated to be 30 per cent.
- PURDY, L. *Municipal pensions.* Nat. Munic. Rev., Jan., 1918. Pp. 6. Advantages of pensions in securing efficient service.
- RUBINOW, I. M. *The theory and practice of law differentials.* Pro. Casualty, Actuarial & Stat. Soc. of Am., Oct. 31-Nov. 1, 1917. Pp. 36. Comprehensive

review of available accident data; recommends that recent experience be used to revise standard accident table.

RUBINOW, I. M. *The waiting period in American compensation acts.* Journ. Pol. Econ., Mar., 1918. Pp. 28. Analysis of data on injuries of brief duration, summary of American and foreign laws and conclusion that a three-day period has justice and expediency in its favor.

TAYLOR, F. I. *Child labor, education and mothers' pension laws in brief.* Pamphlets of Nat. Child Lab. Com., Nov., 1917. Pp. 84. Summary statement of provisions.

VALGREN, V. N. *Farmers' mutual fire insurance.* Yearbook U. S. Dept. Agri., 1917. Pp. 12. Organization, administration and model by-laws for an American company.

VAN BUREN, G. H. *Comparability—the will-o'-the-wisp of cause of death statistics.* Am. Journ. Pub. Health, Dec., 1917. Pp. 10. Many, if not the majority, of the published death rates for 189 titles of the International list are not comparable for a period of years.

VAN NAME, R. L. *The Minneapolis teachers' retirement fund.* Nat. Munic. Rev., Jan., 1918. Pp. 2. System in use and suggestions for restoring solvency.

WATSON, E. E. *A survey of the workmen's compensation insurance field in this country.* Bull. Ohio Ind. Com., Dec., 1917. Pp. 93. Work of the Ohio state fund, with comparisons of other states.

WOODWARD, J. *Premiums and reserves of the Swiss Accident Insurance Institution.* Pro. Casualty, Actuarial & Stat. Soc. of Am., Oct. 31-Nov. 1, 1917. Pp. 20. Data used in computing rates, etc., with some comparison of New York rates.

Agricultural insurance in 1915 in Switzerland. Intern. Rev. Agri. Econ., Dec., 1917. Pp. 11. Statistics of operations of companies and societies conducting hail and livestock insurance.

Compensation cost of accidents in the anthracite and bituminous coal mines . . . during 1916. Bull. of the Penn. Dept. of Lab. & Indus., July, 1917. Pp. 32. Statistical tables with comment.

Conflicts of jurisdiction over industrial accidents between federal and state authorities. Mo. Rev. U. S. Bur. Lab. Stat., Dec., 1917. Pp. 8. Work of the committee on this subject of the International Association of Industrial Accident Boards and Commissions.

Life insurance and the war. Am. Underwriter, Dec., 1917. Pp. 6. Resumé of experience of British, Canadian, and United States companies.

The organization of farmers' mutual fire insurance companies. Intern. Rev. Agri. Econ., Oct., 1917. Pp. 9. Extract from United States Department of Agriculture Year Book, 1917.

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Pauperism, Charities, and Relief Measures

(Abstracts by George B. Mangold)

- BITTARD, A. L. *Les mutilés de la guerre et la vie économique*. Journ. des Econ., Nov. 15, 1917. An able discussion of the problem of the readjustment of the disabled soldier to industrial life after the war and of the effects of such readjustment on present industrial organization.
- GADSBY, Mrs. M. A. *Provision for disabled soldiers: finding jobs for Great Britain's disabled soldiers*. Mo. Rev. U. S. Bureau Labor Stat., Dec., 1917. The various trades are to be studied in order to determine what occupations are suitable for men having specified disabilities. The employment exchanges are expected to facilitate the work.
- HEXTER, M. B. *Persistency of dependency. A study in social causation*. Quart. Pubs. Am. Stat. Assoc., Dec., 1917. Pp. 7. An analysis of the case records of the Jewish Charities of Cincinnati which shows that the duration of the dependency is decreasing and that the relief agencies are actually rehabilitating families that have become dependent.
- LAMB, E. M. *The spirit of Catholic charity*. Catholic Charities Rev., Mar., 1918. Pp. 3. Extols the motives of Catholic charity but suggests the need of more effective service than heretofore.
- LANE, W. D. *Mothered by the city*. Survey, Jan. 19, 1918. A brief account of the success attained by the Children's Home Bureau of New York City in placing children in family homes. It points out the feasibility of the placing-out plan, and bemoans the danger of the discontinuance of this work.
- LASKER, B. *The death blow to England's poor law*. Survey, Feb. 23, 1918. This article briefly discusses the confusing systems of relief in England and the coördination of effort that is now being developed.
- O'GRADY, J. *Old age dependency in the District of Columbia*. Catholic Charities Rev., Mar., 1918. Pp. 2. A study of 229 aged and dependent men covering such points as former earnings, age at which the men became dependent, and causes of dependency.
- PRICE, E. C. *War charities and street collections*. Charity Organ. Rev., Dec., 1917. This paper deals with the dangers of street collections for charitable agencies and criticises collections obtained on a commission basis.
- DE VESSELITSKY, V. and BULKLEY, H. E. *Money lending among the London poor*. Sociol. Rev., Autumn, 1917. An account of a brief investigation of the exploitation of the poor by "loan sharks." The exorbitant rates of interest paid form a striking parallel to the work of the money lender in the United States where remedial measures have not been adopted.
- WARDLE, G. J. *Provision for disabled soldiers: British Labor Party and the disabled*. Mo. Rev. U. S. Bureau Labor Stat., Dec., 1917. Article states that the British Labor Party favors the government plans for the disabled.

FIFTEENTH LIST OF DOCTORAL DISSERTATIONS IN POLITICAL ECONOMY IN PROGRESS IN AMERICAN UNI- VERSITIES AND COLLEGES

Students whose period of continuous non-residence exceeds three years are omitted from the list. The last date given is the probable date of completion.

The first list of this kind was dated January 1, 1904, and was sent to all members, but not regularly bound in the publications. The subsequent lists have appeared in the publications as follows: Second list, 1905, in third series, vol. iv, p. 737; third list, 1906, in third series, vol. vii, no. 3, supplement, p. 43; fourth list, 1907, in third series, vol. viii, no. 2, supplement, p. 42; fifth list, 1908, in the *Bulletin* for April, 1908, p. 69; sixth list, 1909, in the *Bulletin* for April, 1909, p. 16; seventh list, 1910, in the *Bulletin* for March, 1910, p. 12; eighth list, 1911, in the *Review* for March, 1911, p. 212; ninth list, 1912, in the *Review* for June, 1912, p. 519; tenth list, 1913, in the *Review* for June, 1913, p. 527; eleventh list, 1914, in the *Review* for June, 1914, p. 524; twelfth list, 1915, in the *Review* for June, 1915, p. 476; thirteenth list, 1916, in the *Review* for June, 1916, p. 499; fourteenth list, 1917, in the *Review* for June, 1917, p. 485.

Theory and Its History

- HERMANN FRANKLIN ARENS, A.B., Harvard, 1907; A.M., 1913. The limits of state interference. *Harvard*.
- WILBUR PERE CALHOUN, Ph.B., Hiram, 1913; A.M., Michigan, 1914. Theories of imputation. 1919. *Michigan*.
- CHARLES DICE, B.A., Ohio Northern, 1905; A.M., Northwestern, 1913. New factors affecting the motive to save. 1918. *Wisconsin*.
- ZENA CLARK DICKINSON, A.B., Nebraska, 1914. Relations of psychology and economics. *Harvard*.
- EARL VINCENT DYE, A.B., Columbia, 1910. Economic theories of Peletiah Webster. 1918. *Columbia*.
- FRIEDA FLIGELMAN, A.B., Wisconsin, 1910. The principle of participation: a critique of "Les fonctions mentales dans les sociétés inférieures," the thesis advanced by L. Levy-Bruhl. 1919. *Columbia*.
- HOMER HOYT, A.B., Kansas, 1913; A.M., 1913. The specific productivity theory. 1918. *Chicago*.
- JOSEPH BRADLEY HUBBARD, A.B., Wisconsin, 1912; A.M., 1913. History of economic thought during the Middle Ages. *Harvard*.
- HARRY JEROME, B.A., Omaha, 1912; M.A., Wisconsin, 1915. The principles of customary price. 1918. *Wisconsin*.
- KAORN KOBAYASHI, Bungakushi, Tokyo Imperial University, 1902. Social interaction. 1918. *Chicago*.
- HAZEL KYRK, Ph.B., Chicago, 1910. The consuming process under the present industrial system. 1918. *Chicago*.

- S. LEON LEVY, A.B., College of the City of New York, 1908. Life and work of Nassau William Senior. 1918. *Columbia*.
- JAMES ERNEST MOFFAT, A.B., McMaster, 1914; A.M., Chicago, 1916. A history and criticism of the theory of diminishing returns. 1919. *Chicago*.
- LELAND REX ROBINSON, A.B., Columbia, 1915. The social principle of municipal monopoly charges. 1918. *Columbia*.
- GEORGE HERBERT ROLLER, A.B., Northwestern College, 1910; Ph.B., 1910. The general economic theories underlying the decisions of the Supreme Court 1918. *Columbia*.
- NORMAN JOHN SILBERLING, A.B., Harvard, 1914; A.M., 1915. History of theories of credit. *Harvard*.
- J. FRANKLIN THOMAS, A.B., Beloit, 1904. Theories concerning the influence of physical environment upon society. 1919. *Columbia*.

Economic History and Geography

- LLOYD VERNOR BALLARD, A.B., Beloit, 1912; A.M., Harvard, 1913. Economic conditions in the colonies, 1760-1776. 1919. *Chicago*.
- JESSE H. BAXTER, B.S. Columbia, 1913; A.M., 1914. Economic changes in the South since the Civil War. 1918. *Columbia*.
- ANNIE CATHERINE BAZANSON, A.B., Radcliffe, 1915. The Industrial Revolution in France. *Radcliffe*.
- GLEN ROY BEDENKAPP, A.B., Hamilton, 1912. Economic aspects of the campaign of 1860. 1918. *Columbia*.
- R. P. BIEBER, A.B., Muhlenberg, 1914; A.M., Pennsylvania, 1915. The Lords of Trade and Plantations and the American colonies, 1675-1696. *Pennsylvania*.
- R. G. BOOTH, A.B., Illinois Wesleyan, 1914; A.M., Columbia, 1915. Some social aspects of the development of the natural sciences in England in the eighteenth century. 1918. *Columbia*.
- WITT BOWDEN, A.B., Colorado, 1914. The rise of the great manufactures in England from 1760 to 1790. 1919. *Pennsylvania*.
- HARRIET BRADLEY, A.B., Vassar, 1913; A.M., Columbia, 1915. The enclosures in England, an economic reconstruction. 1918. *Columbia*.
- ELEANOR C. BUCKLEY, A.B., Texas, 1908; A.M., Pennsylvania, 1909. The economic forces underlying Latin-American independence. 1920. *Pennsylvania*.
- MERTON KIRK CAMERON, A.B., Princeton, 1908; A.M., Harvard, 1914. History of the tobacco growing industry in the United States. *Harvard*.
- EDNA CAMPBELL, A.B., Chicago, 1902; A.M., 1906. Geographic influences in the settlement and development of the lower Mississippi Valley. 1918. *Chicago*.
- ANNA C. CLOUDB, A.B., Bryn Mawr, 1905. The Napoleonic Wars as reflected

on the commerce to Philadelphia and New York from 1806 to 1812. *Pennsylvania*.

FREDERICK CHARLES DIETZ, A.B., Pennsylvania, 1909; A.M., Harvard, 1912. The condition of the peasant in Württemberg and the peasant revolt of 1525. *Harvard*.

CLARENCE G. DITTMER, Ph.B., Hamlin, 1910. A socio-economic survey of living conditions in North China. 1918. *Wisconsin*.

WILLIAM HENRY DREESEN, A.B., Greenville, 1907; A.M., Illinois, 1916. History of legislation regulating the mercantile business in the state of Illinois since 1860. 1918. *Illinois*.

H. C. ENGELBRECHT, Concordia Seminary, 1917. Economic aspects of anti-clericalism in Southwest Germany during the fourteenth and fifteenth centuries. 1919. *Chicago*.

FRANCES MARION FAY, A.B., Radcliffe, 1912; A.M., 1913. The trade policy of England and France from 1689 to 1715. 1918. *Radcliffe*.

WILBER JOHN FRASER, A.B., Illinois, 1893; S.M., 1902. Farm incomes in the dairy regions about the Elgin district in Illinois. *Harvard*.

W. F. GALPIN, A.B., Northwestern, 1913; A.M., 1914. The grain trade of England during the Napoleonic Wars. *Pennsylvania*.

J. E. GILLESPIE, A.B., Cornell, 1909; A.M., Harvard, 1910. The influence of overseas expansion on England to 1700. 1918. *Columbia*.

HOWARD CHARLES GREEN, A.B., College of the City of New York, 1902. The radical movement of the American Revolution. 1918. *Columbia*.

H. E. GRIMSHAW, B.S., Columbia, 1914; A.M., Columbia, 1915. Influence on England of India under the rule of the company. 1918. *Columbia*.

H. B. HALL, S.M., Massachusetts Agricultural College, 1912. The history of American agriculture from 1890 to 1910. *Harvard*.

JOYCE ORAMEL HERTZLER, B.A., Baldwin-Wallace College, 1916. The Jewish prophets and Apocalyptists as forerunners of the Utopians. 1919. *Wisconsin*.

LELAND JENKS, A.B., Ottawa, 1913; A.M., Kansas, 1914. Social aspects of the Revolution of 1688-1689 in England. 1918. *Columbia*.

FRANKLIN JOHNSON, JR., A.B., Chicago, 1895; A.M., Columbia, 1898; LL.B., 1898. The development of statute law concerning the negro. 1918. *Columbia*.

HOWARD C. KIDD, A.B., Geneva, 1909; A.M., Columbia, 1911. The development of laissez-faire to legislative control in the United States. 1918. *Columbia*.

A. S. KRAVITZ, Gymnasium, Libau, Russia, certificate; A.B., University of Berne. The peace movement and its relations to the world economy. 1919. *Columbia*.

L. A. LAWSON, A. B., Upsala, 1909; A.M., Columbia, 1911. Social conditions in the Principate of Augustus. 1918. *Columbia*.

- M. F. LAWTON, A.B., Columbia, 1904; A.M., 1912. Philanthropy in Rome and Italy under the early Roman Empire. 1918. *Columbia*.
- LUCY LEWIS, A.B., Bryn Mawr, 1893; A.M., Pennsylvania, 1915. The continental systems and French industry. *Pennsylvania*. 1919.
- MARY V. LIPE, A.B., Barnard, 1907; A.M., Columbia, 1913. The economic status of women of the southern states since the Civil War. 1918. *Columbia*.
- MAY BAKER MARSH, A.B., Michigan, 1908; A.M., Michigan, 1910. Folkways in art. 1919. *Columbia*.
- THOMAS P. MARTIN, A.B., Leland Stanford, 1913; A.M., California, 1914. The confirmation of foreign land titles in the acquired territory of the United States. *Harvard*.
- R. L. MERIWEATHER, A.B., Wofford, 1912; A.M., Columbia, 1914. The southwest frontier, 1740-1776. 1919. *Chicago*.
- SUMIS MESUGI, A.M., Chicago, 1916. The family in Japan. 1918. *Chicago*.
- PARKER T. MOON, B.S., Columbia, 1913. Development of the politician and social programme of the *Action Libérale* in modern France. 1918. *Columbia*.
- CLARENCE HUNTER NORTHCOTT, A.B., Sydney, 1905; A.M., 1916. Australian social development: a study in sociology. 1918. *Columbia*.
- LELAND OLDS, A.B., Amherst, 1912. Social unrest in England, 1811-1819. 1919. *Columbia*.
- O. H. PANNKOKE, A.B., Concordia, 1905. The interrelation of the reformation and the social movement in Saxony. 1918. *Columbia*.
- C. J. POSEY, S.B., Illinois, 1900; S.M., Chicago, 1905. The historical geography of St. Paul. 1918. *Chicago*.
- W. B. SMITH, A.B., Chicago, 1902. White servitude in South Carolina. 1918. *Chicago*.
- LILLIAN SOSKIN, A.B., Barnard, 1915. Panics in the United States, 1837 to 1907. 1918. *Columbia*.
- CHARLES WOOD SUTTON, B.S., University of Washington, 1898. The development policy of Latin America; its economic, political, and social effects and its influence upon international relations. 1918. *Columbia*.
- W. A. TILLEY, A.B., McMaster, 1910; Th.B., 1912; A.M., Chicago, 1915. Attitude of Eastern churchmen of the fourth century toward property and property rights. 1918. *Chicago*.
- J. B. VERNON, A.B., Wake Forest, 1911. The industrial development of the whites and blacks in North Carolina since the war. 1918. *Columbia*.
- HUGO C. M. WENDEL, A.B., Princeton, 1910. Evolution of industrial freedom in Prussia, 1845-1849. 1918. *Pennsylvania*.
- LEVI EDGAR YOUNG, S.B., Utah, 1895. The social and economic development of Utah under the leadership of Brigham Young. 1919. *Columbia*.

Agriculture, Mining, Forestry, and Fisheries

- JOHN DONALD BLACK, B.A., Wisconsin, 1909; M.A., 1910. Land tenure in Wisconsin. 1918. *Wisconsin*.
- CLINTON C. CALDWELL, B.A., Roanoke College, 1905; M.A., Johns Hopkins, 1914. Agricultural history of Craig County, Virginia. 1919. *Wisconsin*.
- CLARENCE L. HOLMES, B.A., Michigan. History of land tenure in South Dakota. 1918. *Wisconsin*.
- E. A. KINCAID, A.B., Washington State, 1910; M.A., Harvard, 1911. Land tenure in California. 1919. *California*.
- MABEL T. LEE, A.B., Barnard, 1916; A.M., Columbia, 1917. Intensive agriculture in China. 1918. *Columbia*.
- PAUL MEHL, B.A., Oregon Agricultural College, 1915. National agricultural policies: What a nation produces. 1919. *Wisconsin*.
- FREDERIC EARNEST RICHTER, A.B., Harvard, 1913. The copper industry. *Harvard*.
- SIMON ERCILE TWINING, Ph.B., Notre Dame, 1913; A.M., Indiana, 1914; A.M., Princeton, 1917. The price of wheat. 1920. *Princeton*.
- THOMAS JACKSON WOOFER, JR., A.B., Georgia, 1912. Negro farm life in Georgia. 1918. *Columbia*.
- HOLBROOK WORKING, A.B., Denver, 1915. A study of the economic effects of government aid to agriculture. *Cornell*.

Manufacturing Industries

- ALZADA COMSTOCK, A.B., Mt. Holyoke, 1910; A.M., Columbia, 1913. The newspaper publishing business. 1918. *Columbia*.
- JAMES ANDERSON FITZGERALD, A.B., Georgetown, 1901; A.M., Chicago, 1907. The commercial organization of the automobile industry. 1919. *Chicago*.
- ALEXANDER C. GOURVITCH, Bachelier ès Lettres, University of Paris, 1910; Diplômé d'Etude Supérieure, 1911; Licencié ès Lettres. Some aspects of the clothing industry. 1918. *Columbia*.
- HOMER E. GREGORY, A.B., Washington State, 1914. The aluminum industry. 1918. *Chicago*.
- ERNEST HERMAN HAHNE, A.B., Nebraska, 1911; LL.B., 1913; A.M., Harvard, 1914. The history of the meat packing industry in the United States. *Harvard*.
- BLANCHE EVANS HAZARD, A.B., Radcliffe, 1907; A.M., 1913. The history of the shoe industry in Massachusetts. *Radcliffe*.
- CHARLES FREDERICK KURTZ, A.B., Highland Park, 1912; A.M., Iowa State, 1914. The evolution of the glass industry in the United States. 1919. *Columbia*.
- ROBERT HERBERT LOOMIS, A.B., Clark, 1911. The shoe industry in Massachusetts since 1875. *Harvard*.

- BROADUS MITCHELL, A.B., South Carolina, 1913. The rise of the cotton mills in the South. 1918. *Johns Hopkins*.
- O. C. STINE, Ph.B., Ohio, 1908. Economic history of corn products in the United States. 1919. *Wisconsin*.

Transportation and Communication

- H. A. BLANKENSHIP, A.B., Marietta, 1914. The Georgian Bay Ship canal. 1919. *Chicago*.
- YU MENG CHEN, A.B., Nanking University, 1914; A.M., Butler, 1916. The problems of merchant marine. 1919. *Columbia*.
- CHARLES CLOYD CREEKPAUM, A.B., Nebraska, 1912. Financial results of state railways. *Harvard*.
- HOWARD DOUGLAS DOZIER, B.A., Vanderbilt, 1908; M.A., Yale, 1916. History of the Atlantic Coast Line System. 1918. *Yale*.
- ROBERT CRAIG EFFINGER, A.B., Virginia, 1914. Railways and business cycles. 1919. *Columbia*.
- CLARE ELMER GRIFFIN, A.B., Albion, 1914; A.M., Illinois, 1915. A history of the railroads of Illinois since 1870. 1918. *Illinois*.
- GEORGIA HAFFNER, A.B., Leland Stanford, 1916; A.M., 1917. Some experiments in governmental aid to railroads. 1919. *Columbia*.
- LEONARD B. KRUEGER, Ph.B., Wisconsin, 1914; M.A., Pennsylvania, 1915. The regulation of ocean traffic. 1918. *Wisconsin*.
- ROBERT ALLEN LESHER, B.S., Lafayette, 1908; Massachusetts Institute of Technology, 1914. A comparative study of American port revenues and expenditures. 1919. *Columbia*.
- SIDNEY L. MILLER, B.A., Kansas State Normal College, 1912; M.A., Wisconsin, 1916. Railroad credit. 1919. *Wisconsin*.
- R. R. PAWAR, A.B., Bombay, 1905; LL.B., 1908; A.M., New York, 1915. The history of railways in British India. 1918. *Columbia*.
- LEONA MARGARET POWELL, A.B., Ohio Wesleyan, 1905. The mail order house. 1918. *Chicago*.
- CHARLES WESLEY SARGENT, A.B., Dartmouth, 1915; A.M., 1916. The trend of federal regulation of railroads. 1919. *Michigan*.
- W. M. W. SPLAWN, A.B., Baylor, 1906; A.B., Yale, 1908; A.M., 1914. A study of the railroad commission in Texas. 1918. *Chicago*.
- RUSSELL ALGER STEVENSON, A.B., Michigan, 1913; A.M., Iowa, 1915. Depreciation and rate control. 1919. *Michigan*.
- HENRY W. VAN PELT, A.B., Cornell, 1915; A.M., Columbia, 1917. Local freight discriminations. 1919. *Columbia*.
- RALPH BYRON WILSON, A.B., Ohio State, 1908; A.M., 1910. The practical problems of railroad operation. *Harvard*.

Trade, Commerce, and Commercial Crises

- RALPH EASTMAN BADGER, B.A., Dartmouth, 1913; M.C.S., 1914. A study in the marketing of raw silk and silk products in the United States. 1919. *Yale*.
- EVERETT CLAIR BANCROFT, B.A., Acadia, 1914; Yale, 1915. Trade relations of Canada with the United Kingdom. 1919. *Yale*.
- HARRY ALONZO BRANDT, B.A., Pomona, 1914. The hide and leather trade. 1919. *Yale*.
- O. G. CARTWRIGHT, A.B., Yale, 1893; A.M., Yale, 1901. A history of the American consular system. 1918. *Columbia*.
- WILFRED ELDRED, A.B., Washington and Lee, 1909; A.M., Harvard, 1911. Wheat production and the wheat and flour trade in the United States since 1860. *Harvard*.
- HENRY ERNST ERDMAN, B.S., South Dakota State, 1912. Coöperative and municipal marketing of whole milk in the United States and abroad. 1919. *Wisconsin*.
- LORAIN FORTNEY, LL.B., West Virginia, 1900; A.B., 1900. Warehousing. 1918. *Chicago*.
- LEIGHTON GEORGE FOSTER, B.A., Lawrence College, 1912; M.A., Wisconsin, 1916. Methods of marketing Wisconsin livestock. 1919. *Wisconsin*.
- ALFRED P. HAAKE, B.A., University of Wisconsin, 1914; M.A., 1916. Marketing of coal. 1919. *Wisconsin*.
- ALVIN HANSEN, B.A., Yankton, 1910; M.A., Wisconsin, 1915. Some phases of the business cycle. 1918. *Wisconsin*.
- MILTON H. HARRIS, A.B., Brigham Young, 1913; A.M., Columbia, 1917. The relation between foreign investments and commerce. 1919. *Columbia*.
- JOSEPH HENRY FOTH, A.B., Oklahoma, 1914; A.M., 1914. Trade associations. 1919. *Chicago*.
- ASHER HOBSON, B.S., Kansas; M.A., Wisconsin, 1915. The direct marketing of farm products. 1919. *Wisconsin*.
- LLOYD W. MAXWELL, A.B., Oklahoma, 1912; A.M., Columbia, 1916. Government regulation of prices. 1918. *Columbia*.
- ROBERT ELWOOD MOORE, A.B., Wesleyan, 1915; A.M., 1916. An investigation of the relation of iron prices to business conditions. 1919. *Columbia*.
- ELMER SERANO NELSON, A.B., Southern California, 1917. The foreign commercial policy of the United States as it affects its trade relations with the Argentine Republic. 1920. *Yale*.
- HUGH BRUCE PRICE, B.A., Wisconsin, 1914; M.A., Minnesota, 1916. The inspection and grading of grain. 1918. *Yale*.
- WILLIAM CHARLES SCHLUTER, A.B., Iowa State, 1915; A.M., Columbia, 1916. A study in business cycles: the industrial conditions of Germany, France, England, and the United States from 1907 to July, 1914. 1918. *Columbia*.

- CHONG SU SEE, B.S., Columbia, 1915; A.M., 1916. The foreign trade of China. 1918. *Columbia*.
- REXFORD G. TUGWELL, B.S., 1915, Pennsylvania; A.M., 1916. The public interest and the price for milk. 1918. *Pennsylvania*.
- JACOB VINER, A.B., McGill, 1914; A.M., Harvard, 1915. Trade balances and their significance. *Harvard*.
- HAROLD B. WARD, S.B., Chicago, 1914. Geographic influence in the trade between the United States and South America. 1918. *Chicago*.
- JOHN HENRY WILLIAMS, A.B., Brown, 1912. Argentine trade. *Harvard*.

Accounting, Business Methods, Investments, and the Exchanges

- PHILIP WEI CHEN, B.S., Pennsylvania, 1916; A.M., Columbia, 1917. Foreign investments in China. 1919. *Columbia*.
- M. B. GLAESER, B.A., Wisconsin, 1912. The cost of service principle in railroad rate-making. 1919. *Wisconsin*.
- WILLIAM D. GORDON, B.S., 1916, Pennsylvania. Scientific control of stores. 1920. *Pennsylvania*.
- ROBERT LEE HALE, A.B., Harvard, 1906; A.M., 1907; LL.B., 1909. Valuation and rate-making. 1918. *Columbia*.
- ROY BERNARD KESTER, A.B., Missouri Wesleyan, 1902; B.C.S., Denver, 1911; A.M., 1912. A study in the valuation of a commercial balance sheet. 1918. *Columbia*.
- MABEL B. PALMER, B. L., California, 1908; M. L., 1912. Spanish phonography. 1919. *California*.
- JOHN W. RIEGEL, B.S., Pennsylvania. 1918. Uniform accounting systems for basic industries. 1921. *Pennsylvania*.
- FRANK PARKER, Pennsylvania, B.S., 1911; LL.B., 1915. Theories of depreciation applied to public utilities. 1920. *Pennsylvania*.
- HERBERT NICHOLAS SCHMITT, A.B., Michigan, 1916; A.M., 1918. The accounting analysis and treatment of appreciation. 1919. *Michigan*.
- JACOB HYMAN SCHMUCKLER, B.S., Columbia, 1914; A.M., 1915. Essays in corporation finance. 1918. *Columbia*.
- FRANCES HOWARD TETLOW, A.B., Radcliffe, 1908. The establishment type of trade agreements. 1919. *Bryn Mawr*.
- CHARLES DEDERER THOMPSON, A.B., Princeton, 1905. Land value and land speculation. 1919. *Columbia*.

Capital and Capitalistic Organization

- WILLIAM LEWIS ABBOTT, A.B., Pennsylvania, 1911; A.M., LL.B., 1913. The effect of combinations on the wholesale grocery trade. 1918. *Pennsylvania*.
- LEONORA ARENT, B.D.I., Iowa State Teachers College, 1911; B.A., Iowa State

- University, 1917. Gas and electric franchises in New York City. 1919. *Columbia*.
- JAMES CUMMINGS BONBRIGHT, A.B., Northwestern, 1913. Commission regulation of public utility securities. 1918. *Columbia*.
- CLARENCE E. BONNETT, S.B., Missouri, 1908. Employers' associations. 1918. *Chicago*.
- HARRY JAMES CARMAN, Ph.B., Syracuse, 1913; A.M., 1914. The street railway franchises in New York City. 1919. *Columbia*.
- GEORGE J. EBERLE, B.A., Wisconsin, 1914. The economics of electric railway fares. 1918. *Wisconsin*.
- L. A. FRYE, A.B., Minnesota, 1907; A.M., 1908. History of the state control of public service corporations in New York. 1918. *Columbia*.
- BERT C. FULLER, A.B., Cornell, 1894; LL.B., 1895. Restraint of trade at common law and under the Sherman anti-trust law. 1918. *Columbia*.
- EDGAR H. GUSTAFSON, B.A., North Dakota, 1915; M.A., 1916. Economic principles in the valuation of public service corporations. 1919. *Wisconsin*.
- RUSSELL DONALD KILBORN, A.B., Michigan, 1915; A.M., 1916. The essential conditions for effective monopoly control. 1919. *Michigan*.
- O. H. LUKE, A.M., New York, 1915. German Kartels and the policy of the German government toward them. 1918. *Columbia*.
- WALTER JEFFRIES MATHERLY, A.B., William Jewell, 1915; A.M., Washington, 1916. Surplus earnings in public service corporations. 1919. *Chicago*.
- REID LAGE McCLUNG, A.B., Morris Harvey, 1904. Unfair methods of competition. *Cornell*.
- CLAUDE T. MURCHISON, A.B., Wake Forest, 1911. Resale price maintenance. 1919. *Columbia*.
- L. C. SORELL, A.B., Colgate, 1911. State antitrust legislation and its results. 1919. *Chicago*.
- MARGARET LOOMIS STECKER, A.B., Cornell, 1906. The National Founders' Association. *Cornell*.
- FLOYD L. VAUGHAN, B.A., Texas, 1913; M.A., 1914. Relation of patents to industrial monopolies. 1918. *Wisconsin*.
- L. D. WHITE, S.B., Dartmouth, 1914. The origin and development of regulating commissions. 1919. *Chicago*.

Labor and Labor Organizations

- HORACE RICHARDS BARNES, A.B., Pennsylvania, 1911; M.A., 1913. An economic interpretation of society's attitude toward child labor. *Pennsylvania*. 1919.
- JOSHUA BERNHARDT, A.B., Rochester, 1916. The influence of the immigrant upon American labor organizations. 1919. *Johns Hopkins*.

- HUBERT EMERSON BICE, B.A., Ohio State, 1909; M.A., 1913. The unemployable. 1919. *Ohio State*.
- CLYDE ELMORE BURGEE, A.B., Western Maryland, 1914. Social aspects of trade unionism. 1919. *Johns Hopkins*.
- AGNES MARY HADDEN BYRNES, A.B., Northwestern, 1915; A.M., Columbia, 1916. Industrial home work in Pennsylvania. 1918. *Bryn Mawr*.
- WARREN B. CATLIN, A.B., Nebraska, 1903. The labor movement; its roots and branches. 1918. *Columbia*.
- ELIZABETH LELAND CHAMBERLAIN, A.B., Mt. Holyoke, 1914. The International Cigar Makers' Union. 1918. *Chicago*.
- PAUL HOWARD DOUGLAS, A.B., Bowdoin, 1913. American apprenticeship and industrial education. 1918. *Columbia*.
- NATHAN FINE, Ph.B., Chicago, 1915. Labor and politics. Chicago. 1918.
- CLYDE OLIN FISHER, A.B., Trinity (N. C.), 1911; A.M., Columbia, 1916. Federal power in railway labor disputes. 1918. *Cornell*.
- ALEXANDER FLEISHER, A.B., Pennsylvania, 1908; A.M., Wisconsin, 1911. The enforcement of labor laws with special reference to child labor. 1918. *Columbia*.
- PHILIP SARGANT FLORENCE, A.B., Cambridge, 1912; A.M., 1915. Methods of investigating industrial fatigue. 1918. *Columbia*.
- EDGAR STEVENSON FURNISS, B.A., Coe College, 1911. Labor theories in England, 1660-1775. 1918. *Yale*.
- BENJAMIN GLASSBERG, A.B., College of the City of New York, 1910; A.M., Columbia, 1914. Federal labor legislation of the twentieth century. 1918. *Columbia*.
- ETHEL LIZZIE GOODWIN, A.B., Barnard, 1909; A.M., Columbia, 1910. The regulation of wages through boards as a remedy for the sweating system. 1918. *Columbia*.
- E. T. HILLER, S. B., Northwestern, 1912; A.M., 1913. The technique of the strike—a social psychological study. 1918. *Chicago*.
- STANLEY EDWIN HOWARD, A.B., Bates, 1910; A.M., Princeton, 1913. Wages in the New England cotton industry. 1918. *Princeton*.
- C. ROLAND HUGINS, A.B., Cornell, 1911. The use of armed force in labor disputes. *Cornell*.
- EMILIE JOSEPHINE HUTCHINSON, A.B., Barnard, 1905; A.M., Columbia, 1908. Minimum wage legislation as a solution of the wage problem. 1918. *Columbia*.
- RICHARD HINES LANSBURGH, B.S., Pennsylvania, 1915; A.M., 1916. Labor turnover. 1919. *Pennsylvania*.
- THOMAS ERNEST LARKIN, A.B., St. Mary's College (Kansas), 1915; A study in apprenticeships, trade, and educational agreements. 1918. *Catholic University*.

- FRED THOMAS LENA, A.B., Dartmouth, 1907; A.M., Columbus, 1915. Economic significance of the entrance of women into industry. 1918. *Columbia*.
- E. D. LUCAS, A.M., Columbia; B.D., Union Theological Seminary. Factory conditions in the Punjab, India. 1919. *Columbia*.
- JAMES HUGH MCKEAN, A.B., Michigan, 1916. Trade unions and the working day. 1919. *Johns Hopkins*.
- ROBERT LOUIS MASSON, B.A., Iowa, 1912; M.A., 1915. History of federal labor legislation. *Harvard*.
- FRIEDA SEGELKE MILLER, A.B., Milwaukee-Downer, 1911. A theory of the development of trade unionism in the United States. 1918. *Chicago*.
- EDWARD BECKER MITTLEMAN, A.B., Wisconsin, 1914. The history of labor in Chicago. 1918. *Chicago*.
- HAZEL GRANT ORMSBEE, A.B., Cornell, 1915. The juvenile labor exchange in the United States and England, with a statistical analysis of records in the Philadelphia Bureau of Compulsory Education. 1919. *Bryn Mawr*.
- ALEXANDER ROSEN, A.B., College of the City of New York, 1904; A.M., Columbia, 1909. The influence of recent economic changes upon the development of the American trade union movement. 1918. *Columbia*.
- HELEN ROSS, A.B. and B.S., Missouri, 1911. Married women in industry. 1920. *Bryn Mawr*.
- HAYNIE H. SEAY, A.B., Richmond, 1913; A.M., Columbia, 1915. Women and child labor conditions in Virginia. 1919. *Johns Hopkins*.
- S. SLICHTER, B.A., Wisconsin, 1913; M.A., 1914. The turnover of labor. 1918. *Chicago*.
- ARCHIBALD HERBERT STOCKDER, A.B., Colorado, 1915; A.M., 1916. Productivity of labor in the bituminous coal industry. 1919. *Columbia*.
- B. M. SQUIRES, B.A., Wisconsin, 1913; M.A., 1914. Canadian industrial disputes investigation act. 1918. *Columbia*.
- DONALD REED TAFT, A.B., Clark, 1914. The rôle of sympathy in labor organizations. 1919. *Columbia*.
- ORDWAY TEAD, A.B., Amherst, 1912. The principle of representation in the government of industry. 1919. *Columbia*.
- ALFRED H. WILLIAMS, B.S., Pennsylvania, 1915. The influence of the present war on organized labor's share in the management and profits of industry. 1920. *Pennsylvania*.

Money, Prices, Credit, and Banking

- CARL MARTIN BURKE, A.B., Bethany, 1912; A.M., Kansas, 1913. A study of discount policies. *Cornell*.
- NEIL CAROTHERS, B.A., Arkansas; Diploma in economics, Oxford (England), 1907. Fractional currency in the United States. 1919. *Princeton*.
- HARRY FRANCIS GRADY, A.B., St. Mary's University (Baltimore), 1907. The

- development of commercial paper under the federal reserve system. 1918. *Columbia*.
- FRANK DUNSTONE GRAHAM, A.B., Dalhousie, 1913; LL.B., 1915. Period of suspension of specie payments in the United States 1862-1879. *Harvard*.
- RAY VICTOR LEFFLER, A.B., Michigan, 1915; A.M., 1917. The position of New York in international finance. 1919. *Michigan*.
- MORGAN GEN LOUIS, B.A., Chou Lu College, Changsha City, China, 1910; M.A., Ohio State, 1915. A study of the development of modern monetary and banking systems with a view to suggesting a satisfactory monetary and banking system for China. 1918. *Ohio State*.
- JOSEPH LEE McDONALD, A.B., Indiana, 1915. Economic limits to the use of the trade acceptance. 1920. *Pennsylvania*.
- ARTHUR ELI MUNROE, A.B., Harvard, 1908; A.M., 1914. Discussion of money and banking in the American colonies. *Harvard*.
- H. N. POTTER, A.B., Arkansas, 1914. Commercial paper houses. 1919. *Chicago*.
- THOMAS BRUCE ROBB, B.A., Park, 1912; M.A., Yale, 1914. Government insurance of bank deposits in the United States. 1919. *Yale*.
- OSCAR BAXTER RYDER, A.B., Richmond, 1908; A.M., 1909. History of banking in Virginia. *Harvard*.
- WILLIAM HOWARD STEINER, B.S., Columbia, 1916; A.M., 1917. State banks and the federal reserve system. 1918. *Columbia*.
- MARJORIE TAPPAN, A.B., Cornell, 1916. Institution of credit. 1919. *Columbia*.
- DONALD SKEELE TUCKER, A.B., Colorado, 1906; A.M., Williams, 1912. History of coöperative banking up to 1900. 1919. *Columbia*.
- HERMAN WARSHOW, A.B., Cornell, 1916. The effect of the federal reserve system on bank credit. *Cornell*.

Public Finance, Taxation, and Tariff

- BHIMRAO RAMJI AMBEDKAR, A.B., Bombay, 1912. Financial history of India. 1918. *Columbia*.
- FRANK FERRIS ANDERSON, A.B., Minnesota, 1908. The industrial claims of the single-taxers. 1919. *Columbia*.
- WILLIAM BURKE BELKNAP, A.B., Yale, 1908. The financial history of Kentucky. *Harvard*.
- JAMES W. BELL, A.B., Mississippi, 1898; A.M., 1909. The general property tax of Mississippi; its failure and some proposed substitutes. 1918. *Columbia*.
- JAMES WASHINGTON BELL, A.B., Colorado, 1912; A.M., 1913. Taxation of railroads. *Harvard*.
- ARTHUR EUGENE BUCK, Ph.B., Milligan, 1910; B.S., Tennessee, 1913. Operation of the Edge budget law in New Jersey. 1918. *Columbia*.

- ROBERT ARGYLL CAMPBELL, A.B., Wisconsin, 1906. Taxation in Indiana. 1918. *Cornell*.
- HUDLEY DEWITT CARROLL, A.B., Guilford, 1907; A.M., Haverford, 1908. The history of taxation in North Carolina. 1918. *Columbia*.
- REBEKAH P. DAVIS, B.S., Pennsylvania, 1915. The Philadelphia budget. 1920. *Pennsylvania*.
- LE GRAND REX DROWN, A.B., Wooster, 1915; A.M., Columbia, 1916. The validity of the pay-as-you-go policy in public school outlays. 1918. *Columbia*.
- HUNTINGTON GILCHRIST, A.B., Williams, 1913; A.M., Harvard, 1916. The Maine budget. 1918. *Columbia*.
- MARGARET CHASE GOING, B.A., McGill, 1912; M.A., 1913. The financial history of Montreal. 1919. *Chicago*.
- JENS PETER JENSEN, A.B., Dakota Wesleyan, 1913; A.M., Minnesota, 1917. Twenty years of federal finance, 1897-1916. 1919. *Chicago*.
- LLOYD FRED HERRETT, B.L., Ohio Wesleyan, 1913. Standardization of governmental functions. 1918. *Columbia*.
- FENG HUA HUANG, A.B., Wisconsin, 1917; A.M., 1917. Public debts in China. 1919. *Columbia*.
- HAN-LIANG HUANG, B.Litt., Princeton, 1915; A.M., Columbia, 1916. Land tax in China. 1918. *Columbia*.
- CLARENCE HEER KAISER, A.B., Rochester, 1914. Taxable income. 1918. *Columbia*.
- JOHN EMMETT KIRSHMAN, Ph.B., Central Wesleyan, 1904; Ph.M., Syracuse, 1908. Taxation of corporations. *Harvard*.
- WALLACE MITCHELL MCCLURE, A.B., Tennessee, 1911; LL.B., 1911. Public finance in Tennessee. 1918. *Columbia*.
- ROWLAND ROBBINS McELVARE, A.B., Columbia, 1913; A.M., 1914. Public debts of Europe in recent times. 1918. *Columbia*.
- MARION O'KELLIE MCKAY, S.B., Ohio Northern, 1907; A.B., Ohio State, 1910; A.M., Harvard, 1912. The poll tax in the United States. *Harvard*.
- RAYMOND MOLEY, B.Ph., Baldwin; A.M., Oberlin. The state movement for efficiency and economy. 1918. *Columbia*.
- CHARLES STILLMAN MORGAN, B.A., Michigan, 1914. A statistical analysis of the increase in American public expenditures. 1919. *Yale*.
- T. W. OVERBACH, Schleiz, 1907. Foreign financial control in China. 1918. *California*.
- SHANKER MADHAN PAGAR, A.B., Wisconsin, 1914; A.M., Columbia, 1915. The Indian income tax. 1918. *Columbia*.
- LLOYD PRESTON RICE, A.B., Wesleyan, 1913; A.M., Harvard, 1914. History of taxation in Connecticut. *Harvard*.

JOHN VALENTINE VAN SICKLE, A.B., Haverford, 1913. History of taxation in Massachusetts since 1860. *Harvard*.

KOSSUTH MAYER WILLIAMSON, A.B., Alabama, 1913; A.M., Harvard, 1914. Federal internal taxation since 1871. *Harvard*.

Population and Migration

LEROY EDWARD BAUMANN, A.B., Chicago, 1912. Race amalgamation in Greenpoint (Brooklyn) as affected by leadership. 1918. *Columbia*.

R. S. CASTELMAN, Ph.B., Chicago, 1914. Early emigration from Spain to America. 1918. *Chicago*.

STANLEY POWELL DAVIES, A.B., Bucknell, 1912. Racial assimilation in a community in the anthracite coal region. 1919. *Columbia*.

Z. T. EGARTNER, A.B., Cincinnati, 1914. Race prejudice in the United States of America. 1918. *Chicago*.

JOSEPH M. GILLMAN, A.B., Western Reserve, 1913; A.M., Columbia, 1915. The immigration problem in Cleveland. 1918. *Columbia*.

C. C. JANZEN, A.B., Taylor, 1913; A.M., Kansas, 1914. The Americanization of the German Russian Mennonites in central Kansas. 1919. *Chicago*.

THOMAS PATRICK KELLY, A.B., College of the City of New York, 1912; A.M., Columbia, 1915. Immigration and industrial education. 1918. *Columbia*.

RACHEL B. MURAVCHIK, Certificate, Gymnasium, Kief, 1903; A.M., Columbia, 1913. Modern civilization and the declining birth-rate. 1918. *Columbia*.

JAMES R. MUTCHMORE, A.B., Toronto, 1913; A.M., Columbia, 1915. Canadian immigration. 1919. *Columbia*.

E. B. REUTER, A.B., Missouri, 1910; A.M., 1911. The mulatto; a sociological and psychological study. 1918. *Chicago*.

DONNA FAY THOMPSON, A.B., Indiana, 1913; A.M., 1914. The birth rate in college graduates' families. 1919. *Columbia*.

Social Problems and Reforms

H. E. BARNES, A.B., Syracuse, 1913; A.M., 1914. A history of the penal reformatory and correctional institutions in the state of New Jersey. 1918. *Columbia*.

H. H. BENEKE, A.B., Miami, 1909; A.M., Chicago, 1912. The concept of graft. 1919. *Chicago*.

MARGARET G. B. BLACHLY, Ph.B., Chicago, 1912. Present tendencies in social reform. 1918. *Chicago*.

WILLIAM R. BLUMENTHAL, B.S., Ohio; M.A., Harvard, 1915. Economics of vocational guidance. *Denver*.

CHARLES H. CHASE, B.S., Columbia, 1913. Social inefficiencies in our industrial life. 1918. *Columbia*.

ALICE SQUIRES CHEYNEY, A.B., Vassar, 1909. Community problems in Penn-

- sylvania towns, with special reference to the assimilation of varied racial groups. 1919. *Bryn Mawr*.
- ARCHIBALD B. CLARK, A.B., Reed, 1916. The popular vote as an index of social solidarity. 1918. *Columbia*.
- WILLIAM E. GARNETT, B.A., Cornell, 1913; M.A., Peabody, 1916. Rural social survey of Albemarle county, Virginia. 1918. *Wisconsin*.
- GEORGE EVERITT GILL, A.B., Indiana, 1912. Trade and technical journals as factors in modern business. 1918. *Columbia*.
- WILLIAM EARL GIVENS, A.B., Indiana, 1913. The social value of the Chautauqua movement. 1919. *Columbia*.
- JOHN R. HART, B.A., Pennsylvania, 1911; M.A., 1911. Economic waste in the distribution of Protestant churches. 1920. *Pennsylvania*.
- CARY WALKER HAYES, A.B., Washburn, 1909; A.M., Columbia, 1912. Public morals and recreation; a municipal program. 1918. *Columbia*.
- GLENN R. JOHNSON, A.B., Reed, 1915. The American newspaper as an indicator of social forces. 1918. *Columbia*.
- F. W. JONES, B.S., Virginia Polytechnic Institute, 1908; A.B., Richmond, 1911; A.M., Columbia, 1914. Measure of forms of political progress. 1918. *Columbia*.
- ANNA CHRISTINE MCBRIDE, A.B., Missouri, 1912; B.S., 1912; A.M., 1913. Phases of the standardization of conduct. 1918. *Columbia*.
- JOSEPH R. MAYER, Changing standards of vice control—the repressive program. *Columbia*.
- JANE ISABELL NEWELL, B.A., Wellesley, 1907; M.A., Wisconsin, 1908. The Women's Christian Temperance Union. *Wisconsin*.
- REBECCA OSLER, B.A., Swarthmore, 1913; M.A., Wisconsin, 1916. Protection of professional standards. 1919. *Wisconsin*.
- RUSSELL GORDON SMITH, A.B., Richmond, 1911; A.M., Columbia, 1914. A sociological study of opinion in the United States. 1918. *Columbia*.
- WILLIAM C. SMITH, A.B., Grand Island, 1907; A.M., Chicago, 1912. Social aspects of the Salvation Army Movement. 1918. *Chicago*.
- RALEIGH W. STONE, M.S., Valparaiso, 1914. The rural survey. 1918. *Chicago*.
- O. G. REUMANN, A.B., Syracuse, 1913; A.M., 1915. Inebriety and its treatment. 1918. *Columbia*.
- DONALD W. SAWTELLE, B.S., Maine, 1913; M.A., Wisconsin, 1915. A rural survey of Dane county, Wisconsin. 1920. *Wisconsin*.
- HERBERT NEWHARD SHENTON, A.B., Dickinson, 1906; A.M., 1909; B.D., Drew, 1910. Collective decision. 1918. *Columbia*.
- F. M. THRASHER, A.B., DePauw, 1915. Boy scout work. 1918. *Chicago*.
- MARY VAN KLEECK, A.B., Smith, 1904. The fact basis for industrial reform. 1918. *Columbia*.

AMEY EATON WATSON (Mrs. Frank D.), A.B., Women's College in Brown University, 1907; A.M., Pennsylvania, 1910. Social treatment of illegitimate mothers. 1918. *Bryn Mawr*.

EDITH ELMER WOOD, B.L., Smith, 1890. Housing legislation in the United States. *Columbia*.

A. C. ZUMBRUNNEN, A.B., Central, 1907; A.M., Missouri, 1909. The community church as a type of denominational union. 1918. *Chicago*.

Insurance and Pensions

ISRAEL SAMUEL ADLERBLUM, A.B., College of the City of New York, 1908; A.M., Columbia, 1909. The supervision and taxation of life insurance companies. 1918. *Columbia*.

T. COULSTON BOLTON, B.S., 1912, Pennsylvania; A.M., 1917. Assignment of life insurance policies. 1919. *Pennsylvania*.

JOSEPH LOUIS COHEN, A.B., Cambridge, 1913. Insurance against unemployment. 1918. *Columbia*.

EDITH SCOTT GRAY, A.B., Oberlin, 1911; A.M., 1912. Systems of workingmen's compensation in practice. 1918. *Chicago*.

CHARLES K. KNIGHT, A.B., Ohio University, 1912; A.M., 1913. History of life insurance in the United States. 1919. *Pennsylvania*.

EDWARD LAURENCE MCKENNA, A.B., Columbia, 1913; A.M., Illinois, 1914. Title insurance in the United States. 1919. *Pennsylvania*.

GEORGE LIVINGSTON WILLIAMS, Industrial pensions as applied to the leading industries of the United States. 1919. *Columbia*.

Pauperism, Charities, and Relief Measures

GEORGIA LOUISE BAXTER, A.B., Denver, 1914; A.M., California, 1917. A statistical study of non-support and desertion, based on a study of cases in domestic relations court, Philadelphia. 1919. *Bryn Mawr*.

WILLIAM T. CROSS, A.B., Missouri, 1908; A.M., 1909. Institutions of charity and correction. 1919. *Chicago*.

EARL FULLBROOK, B.A., Morningside, 1914; M.A., Iowa, 1918. History of private relief in Iowa. 1919. *State University of Iowa*.

PORTER R. LEE, A.B., Cornell, 1903. Public outdoor relief in the United States. 1918. *Columbia*.

WILLIAM RADDATZ, B.A., Lawrence, 1908; M.A., Northwestern College, 1912. Charitable foundations. 1919. *Wisconsin*.

DAVID J. SCHWEITZER, B.S., College of the City of New York, 1912; A.M., Columbia, 1913. Methods and standards of after care for institutional children. *Columbia*.

HENRY W. THURSTON, A.B., Dartmouth, 1886. The development of standards in the case of dependent children. 1919. *Columbia*.

MARY C. TINNEY, A.B., Adelphi, 1909; A.M., Chicago, 1910. The Catholic home bureau for dependent children in New York City. 1919. *Columbia*.

Socialism and Co-operative Enterprises

HERBERT W. ISAY, Brussels Gymnasium, Brussels University. European socialists and the war. 1918. *Columbia*.

EARL L. STEHMAN, A.B., Franklin and Marshall, 1912. Communistic life of the Moravians at Ephrate, Pennsylvania. 1918. *Columbia*.

Statistics and Its Methods

C. D. BLACHLY, Ph.B., Grinnell, 1908. Organization of social statistics in Chicago. 1918. *Chicago*.

FRANK ALEXANDER ROSS, Ph.B., Yale, 1908; A.M., Columbia, 1913. A study of the application of statistical methods to sociological problems. 1919. *Columbia*.

HERBERT ARTHUR STURGES, A.B., Oberlin, 1904; A.M., 1905. Percentage indices of homogeneity and heterogeneity in statistical series. 1919. *Cornell*.

HARRY S. WILL, B.A., Ohio State, 1910; M.A., 1916. A statistical study of behaviour of social groups. 1918. *Ohio State*.

NOTES

Since February 1, 1918, the following names have been added to the membership of the American Economic Association:

Anderson, David O., Marion, S. C.
 Barth, Carl G., 6151 Columbia Ave., Philadelphia, Pa.
 Behler, P. P., Clarkston, Wash.
 Bemis, Judson S., No. 2 Brentmoor, St. Louis, Mo.
 Bennett, Hugh H., Bureau of Soils, Dept. Agriculture, Washington.
 Blum, Frank J., Dansville, N. Y.
 Bosch, Joseph, Lake Linden, Mich.
 Bradley, Henry, Milwaukee, Wis.
 Brooks, Charles E., 576 Fifth Ave., New York City.
 Brooks, Warren F., 87 Milk St., Boston, Mass.
 Brown, Earl T., Janesville, Wis.
 Campbell, John F., 326 Madison St., West Chicago, Ill.
 Chase, C. L., 123 Nicolet Ave., Minneapolis, Minn.
 Clemons, J. H., Reno, Nevada.
 Corbett, Dr. Edward L., 336 Alexander Ave., New York City.
 Cramer, Carl, Harrison Ave. and McHenry Road, Cincinnati, Ohio.
 Crockett, William P., 411-417 Jefferson St., Chicago, Ill.
 Cutler, B. S., 1633 Massachusetts Ave., Washington, D. C.
 Davidson, William G., 32 S. Front St., Philadelphia, Pa.
 Dieckman, Adolf, 1180 Harrison Ave., Cincinnati, Ohio.
 Drath, H. H., 130 West Water St., Milwaukee, Wis.
 Dunn, O. W., Omaha, Nebr.
 Eckman, W. J., Cincinnati, Ohio.
 Emsheimer, A. W., 320 Schmulbach Bldg., Wheeling, W. Va.
 Engler, Erwin W., 12 Deer Cove, Lynn, Mass.
 Erdman, H. E., Ohio State University, Columbus, Ohio.
 Escher, W. C., 22 Scheideggstrasse, Zurich, Switzerland.
 Farquhar, Henry, 1601 Park Road, Washington, D. C.
 Felt, D. E., 432 Wellington Ave., Chicago, Ill.
 Fisk, Harvey E., 16 Wall St., New York City.
 Flint, Dutee W., Allens Ave., Providence, R. I.
 Foss, F. E.-M. E., Russian Embassy, Washington, D. C.
 Frame, S. J., 24 King St. West, Toronto, Ont., Canada.
 Fraser, Wilber J., University of Illinois, Urbana, Ill.
 Frederiksen, Ditlew M., 613 Phoenix Bldg., Minneapolis, Minn.
 Friedman, Elisha M., Council of National Defense, Washington, D. C.
 Gaillard, A. J., Moose Jaw, Sask., Canada.
 Geiger, Lester C., Mendota, Illinois.
 Glenn, Charles S., Detroit, Mich.
 Gross, H. G., 166 N. Michigan Ave., Chicago, Ill.
 Guenther, H. F., 1125 32d St., Milwaukee, Wis.
 Hallenbeck, William D., Hudson, N. Y.
 Handman, Max S., University of Texas, Austin, Texas.

- Handschin, Walter F., 1401 S. Orchard St., Urbana, Ill.
Harris, William, Rockwood, Ont., Canada.
Haskins, R. C., 1242 Pratt Bvd., Chicago, Illinois.
Hildebrant, H. J., Shelby, Ohio.
Hindsley, Norman, Calgary, Alberta, Canada.
Hodge, S. A., Wilkes-Barre, Pa.
Holmes, C. L., 215 12th St. S. W., Washington, D. C.
Hulme, Thomas W., 701 Broad Street Station, Philadelphia, Pa.
Hutchins, G. H., Woolworth Bldg., New York City.
Israel, W. D., 1004 West 8th St., Des Moines, Iowa.
Izzard, A. E., Woodstock, Ont., Canada.
Jacks, Noel H., Camp Fremont, Menlo Park, California.
Jappe, Paul E., 27 Curtis Place, New Brighton, S. I., N. Y.
Johnston, H. Watters, 962 Battery St., San Francisco, Calif.
Jull, M. A., Macdonald College, Quebec, Canada.
Jung, E. F. E., care of Hallgarten & Co., 5 Nassau St., New York City.
Kawasaki, K., Mita-Shikoku-Machi, Shiba, Tokyo, Japan.
Keith, Elsworth, 1001 W. Van Buren St., Chicago, Ill.
Kirshman, John E., 36 Ash St., Cambridge, Mass.
Kittle, G. R., Columbus, Ohio.
Klein, Charles A., 61 Broadway, New York City.
Kravitz, Aaron, Federal Trade Commission, Washington, D. C.
Lawhon, Z. R., Box 86, Shreveport, La.
Leake, James M., Allegheny College, Meadville, Pa.
Lewis, L. B., care of F. N. Joslin & Co., Malden, Mass.
Lyman, Charles A., 916 Castle Place, Madison, Wis.
Lytton, George, Chicago, Illinois.
Maclean, Donald, Saskatoon, Sask., Canada.
Marble, S. J., Woolworth Bldg., New York City.
Marvin, H. W., Columbus, Indiana.
Moulton, William H., 121 Oak St., Ishpeming, Mich.
Mudgett, Bruce D., University of Washington, Seattle, Wash.
Nakano, Sohei, 969 Handa-Machi, Chita-Gun, Oichi-Ken, Japan.
Nelson, H. W., Moline, Ill.
Nelson, James P., Richmond, Va.
Newbegin, E., Portland, Oregon.
Nichols, D. H., 11705 Detroit Ave., Cleveland, Ohio.
Nijhoff, Martinus, Lange Voorhout 9, S. Gravenhage, Netherlands.
Norwood, Irving C., Bethlehem, Pa.
Noshomusho-Bunshoka, Dept. Agriculture & Commerce, Tokyo, Japan.
Omwake, John, Cincinnati, Ohio.
Oseroff, Abraham, 356 Second Ave., New York City.
Platts, G. L., 891 Cameron Ave., Detroit, Mich.
Powell, L. F., Richmond, Va.
Pranke, Edward J., 90 Elm St., Flushing, N. Y.
Putnam, L. L., 1215 Otis Bldg., Chicago, Ill.
Racca, Vittorio, 71 First Place, Brooklyn, N. Y.
Rathbun, Jay, 57th St. and Park Ave., New York City.
Retimmoyer, J. R., San Francisco, Calif.

Reynolds, Laurence K., 625 Exchange Bldg., Denver, Colo.
Riegel, Robert, Logan Hall, University of Pennsylvania, Philadelphia, Pa.
Ripley, Robert H., Room 1163 McCormick Bldg., Chicago, Ill.
Rosa, George C., Wellsville, N. Y.
Russell, E. L., Hotel Dalt, 34 Turk St., San Francisco, Calif.
Scarborough, C. H., 161 N. Lansdowne Ave., Lansdowne, Pa.
Schulze, J. William, 1050 East 19th St., Brooklyn, N. Y.
Shower, E. W., Bloomington, Indiana.
Silver, Frank L., 121 Walnut St., Philadelphia, Pa.
Sinclair, J. B., Winnipeg, Man., Canada.
Snider, Joseph L., Fairfax Hall, Cambridge, Mass.
Stein, Ernst, 1149 W. Congress St., Chicago, Ill.
Sterling, Robert, Boulder, Colo.
Street, R. W., 615 Republic Bldg., Kansas City, Mo.
Strong, Wendell M., 34 Nassau St., New York City.
Takagi, Tomosaburo, Tsurgiane-cho, 2 Chome, Higashiku, Osaka, Japan.
Tator, Samuel W., 1648 East 54th St., Chicago, Ill.
Taylor, H. H., Old Colony Bldg., Chicago, Ill.
Tinnes, D. J., Hunter, N. Dak.
Tsujimura, Mr., 4-chome, Dosu-machi, Osaka, Japan.
Tucker, Lt. Albert, Philippine Scout, Manila, P. I.
Vaughan, Roger T., M.D., Cook County Hospital, Chicago, Ill.
Vernier, H. J., Mare Island, Vallejo, Calif.
Ward, Edwin L., Chicago, Ill.
Ward, Robert E., 5 South Wabash Ave., Chicago, Ill.
Warren, G. F., R.D. No. 2, Ithaca, N. Y.
Wilgus, James A., Platteville, Wis.
Wilson, O. T., Arcade, N. Y.
Wolfe, William M., Logan Hall, University of Pennsylvania, Philadelphia, Pa.
Young, Alan V., Hamilton, Ont., Canada.

The annual meeting of the Iowa Association of Economists and Sociologists will be held on November 15 and 16, 1918. The officers are G. P. Wycoff, of Grinnell College, president; and N. R. Whitney, of Iowa City, secretary.

At the annual meeting of the Ohio Academy of Social Sciences in Columbus, March 29 and 30, the following officers were elected: Professor A. R. Hatton, of Western Reserve University, president; President A. M. Stowe, of Toledo, vice-president. The elected members of the executive committee are: Fred C. Croxton, Ohio food administrator; Miss Harriette M. Dilla, Lake Erie College, and Frederick C. Hicks, University of Cincinnati.

At the twenty-third annual meeting of the Michigan Academy of Science, held at Ann Arbor, March 28-30, Professor Frank T. Carlton, of Albion College, was elected president; and Professor L. L. Sharf-

man, of the University of Michigan, was selected as chairman of the Section of Economics. Among the papers presented at the Section of Economics were: "Labor and the war," by Arthur E. Wood, University of Michigan; "The war and the economist," by Frank U. Quillin, Toledo University; "The treatment of appreciation in accounts," by W. A. Paton, University of Michigan; and "Cycles," by C. H. Cooley, University of Michigan.

The annual announcement of the Hart Schaffner & Marx prizes for essays on economic subjects has been made. Information in regard to the conditions of this contest may be obtained of Professor J. Laurence Laughlin, University of Chicago.

Mr. Benjamin Strong, Jr., Governor of the Federal Reserve Bank of New York, has given to Princeton University a collection of local war monetary issues of France. This is said to include issues of every one of the municipalities and communes concerned.

A valuable collection of old American railroadiana has been loaned indefinitely to the library of Princeton University by Edgar van Deusen, of Drexell Liggett & Co., New York, and will be located largely in the Pliny Fisk Library, which already has one of the best railroad collections in the country.

The van Deusen collection consists of a large number of pamphlets, travelers guides, reports of commissions of proposed railroads and commissions to provide for the internal navigation of states, manuscript note books and surveys of early railways, laws, ordinances, litigation and other documents relating to railways, arguments on the preference of railroads to canals, the first railway periodical, early time-tables and annual reports. There are 238 items; 112 of which bear dates between 1802 and 1850, 88 between 1850 and 1870, and 36 between 1870 and 1892.

Among the earliest and most valuable items is a "Traveller's Directory or Pocket Companion," by S. S. Moore and T. W. Jones of Philadelphia and published in 1802 by Mathew Cary, showing by 23 maps the course of the main road from Philadelphia to New York, and from Philadelphia to Washington, with descriptions of the places through which it passed, intersections of cross roads, and so forth, and illustrated with accounts of such objects as were generally interesting to travelers of that time. Another "Travellers' Directory," put out in 1815 by John Mellish, gives a geographical description of the United States with maps of roads and topographical tables from the census of 1810. A very rare document is the "Report (1829) of the Directors

of Internal Improvements of Massachusetts on the railroad from Boston to the Hudson River and from Boston to Providence" with maps and profiles, and also the "Report (1828) of Mr. Baldwin on the railroad surveys from Boston to the Hudson River," bound with it.

The "American Railroad Journal and Advocate of Internal Improvements," for the years 1831-1833, issued weekly in New York, is said to be the first periodical on the subject of railroads in any country. Editorials state that it contains selections from the best authors of Europe and America, illustrated by engravings. A part of the journal is devoted to internal improvements, giving a history of the first introduction of railroads into England, with inventions and improvements to the time of publication.

One of the original manuscript surveys is that for the railroad from Portsmouth to Portland (1835-36) with drawings of roads, rivers, and so forth, and descriptive notes of the route explored; and the Sebascook route for a canal from Hartland to Stillwater and Moosehead Lake, accompanied by observations on the country traversed. The oldest railroad report in the collection is the Third Annual Report (1830) of the Baltimore and Susquehanna Railroad. There is a ledger account book of the New York, Providence and Boston railroad (1833-38) in account with the Engineering department, giving unit costs and so forth. Another interesting and valuable item is a "Sketch of a Geographical Route of a Great Railway (1829) by which it is proposed to connect canals and navigable waters of the states of New York, Pennsylvania, Ohio, Indiana, Illinois, Missouri, and the Michigan, Northwest, and Missouri territories." A second edition was edited in 1830.

E. W. K.

Two monographs on taxation have just been published (at Champaign, Illinois) by members of the department of economics at the University of Illinois: *The Franchise Tax in New York State*, by Dr. M. H. Hunter; and *A Survey of the Revenue System of Delaware County, Pennsylvania*, by Dr. Gordon Watkins.

Professor W. F. Gephart, of Washington University, has completed a study of *The Effect of the War on Insurance* for the Carnegie Endowment.

Harper Brothers announces the publication of *Profit Sharing*, by Professor Ralph E. Heilman.

Through the office of the American Trade Acceptance Council (Woolworth Bldg., New York City) there has been issued a *Trade Accep-*

ance *Catechism*, compiled by Dr. J. T. Holdsworth, University of Pittsburgh.

The monthly letter of the Master Builders Association of Boston, January-February, 1918, contains interesting correspondence on business in war time between Professor Irving Fisher and Mr. W. H. Sayward, secretary of the board of directors, Master Builders Association, Boston.

Volume VIII, Number 1, of the *American Labor Legislation Review* contains the addresses at the Association for Labor Legislation's eleventh annual meeting at Philadelphia in December, 1917. Especially notable are the presidential address of Professor Irving Fisher on "Health and war," Professor M. B. Hammond's summary of "Lessons from British war experience in the employment of labor," and the discussions on conservation and mobilization of America's wartime labor power. A valuable feature is the condensed report of proceedings of the first national conference of health insurance commissioners, which dealt with problems and methods of legislative investigating commissions.

The February, 1918, number of *The Proceedings of the Academy of Political Science* (Columbia University, New York) is devoted to "Economic Conditions of Winning the War" and gives the addresses and papers presented at the annual meeting in December, 1917.

The United States Immigration Service in April, 1918, began the publication of a *Bulletin*, to be published monthly.

The Industrial Commission of Wisconsin has begun to publish periodically *The Wisconsin Apprentice*, designed to promote apprenticeship work in factories. In 1915 the records of the commission showed that there were less than 400 apprentices under contract. Now there are over 1075.

Appointments and Resignations

Professor Thomas S. Adams, of Yale University, has been made chairman of the Board of Reviewers to assist in the administration of the federal excess profits tax.

Professor Abraham Berglund, of Washington University, has accepted a position as special expert with the United States Tariff Commission.

Mr. Frederick T. Bigger, secretary of the Pittsburgh City Planning Commission, is giving a series of lectures on municipal sociology in the

School of Economics at the University of Pittsburgh during the second semester.

Professor E. L. Bogart, of the University of Illinois, will teach in the summer session at Columbia University this summer.

Professor Ernest R. Dewsnap, of the University of Illinois, is on indefinite leave of absence. He has been appointed the statistical and finance officer of the Department of Movements and Railways, of the British War Office.

Dr. Horace B. Drury, of Ohio State University, is on leave of absence for the second semester and is lecturing on business organization in the University of California.

Mr. H. E. Erdman has been appointed assistant professor of rural economics in the Ohio State University.

Professor Frank A. Fetter has been granted leave of absence from Princeton University and has become manager of the western division of the War Camp Community Service. He will have charge of all the recreational work surrounding thirty-six army and navy camps in twenty of the states west of the Mississippi River.

Professor J. A. Field, of the University of Chicago, is an associate of the American representative in the Allied Maritime Transport Council in London and is statistician to the American Mission.

Professor G. E. Frazer, of the University of Chicago, has been given leave of absence to work in the accounting branch of the Quartermaster's Department at Washington.

Professor W. F. Gephart, dean of the School of Commerce and Finance of Washington University, is serving as federal food administrator of the city of St. Louis.

Dr. Donald G. Grass has been called from Leland Stanford Junior University to take charge of the department of business administration at Grinnell College.

Professor James E. Haggerty, of Ohio State University, is serving as director of the division of markets of the state branch of the Council of National Defense.

Mr. Frederick R. Juchhoff has been appointed associate professor of accounting in the College of Commerce at Toledo University. During the summer he will give courses in the University of Virginia.

Professor Howard Kidd has resigned from the department of

economics at the University of Pittsburgh and has entered the Ordnance Training Course of the University of Pittsburgh.

Dr. Julius Klein, of Harvard University, is on leave of absence and is in charge of the Latin-American Division in the Department of Commerce and Labor at Washington. Dr. Klein has been awarded the David A. Wells prize in economics for this year.

Dr. O. W. Knauth, of Princeton University, is in service in the artillery branch as first lieutenant.

Dr. D. A. McCabe, of Princeton University, is serving as first lieutenant in the Signal Corps.

Dr. D. A. MacGibbon, of McMaster University, Toronto, has obtained leave of absence to take a commission in the First Canadian Tank Battalion proceeding overseas.

Mr. Lewis K. Manley has been acting as instructor in sociology and economics at the University of Pittsburgh for the second semester.

Professor Stephen I. Miller has been acting head of the department of economics and acting dean of the School of Business Administration at the University of Washington.

Associate Professor H. A. Millis, of the University of Chicago, has been promoted to a full professorship.

Professor H. E. Mills, of Vassar College, is dean of the Training Camp for Nurses at Vassar College, which is under the auspices of the Council of National Defense and the American Red Cross. He is organizing the work of this preliminary course open to college women, who after its completion will enter high grade hospital training schools.

Assistant Professor H. G. Moulton, of the University of Chicago, has been promoted to an associate professorship.

Mr. G. H. Newlove has resigned his position as assistant in accountancy at the University of Illinois to take an accounting position in the cost section of the Ordnance Department of the Navy, in New York City.

Professor Carl E. Parry, of Ohio State University, is serving as director of public information of the state branch of the Council of National Defense.

Professor R. G. Rodkey has resigned his position as associate professor of accounting at Washington University to become educational director of the Chase National Bank of New York City.

Professor L. F. Schaub has been acting dean, during the second semester, of the Graduate School of Business Administration at Harvard University and has had general supervision of the courses on employment management given under government auspices.

Professor Horace Secrist has had leave of absence from Northwestern University during the second semester, being in charge of statistical work on ship inventories in the Division of Planning and Statistics, United States Shipping Board.

Dr. C. L. Stewart, instructor in economics at the University of Illinois, has been appointed a member of the State Council of Defense, of Illinois.

Mr. E. D. Strong has leave of absence from Grinnell College, department of economics, to serve as travelling auditor for the American Playground and Recreation Association.

Mr. Burton E. Tiffany, formerly of the Wessington Springs Junior College, has been appointed instructor in accounting at the University of South Dakota.

Professor Walter S. Tower, of Northwestern University School of Commerce, is serving on the United States Shipping Board at Washington.

Dr. C. C. Williamson has resigned his position as librarian of the Municipal Reference Library in New York City to take a position as statistician for the Study of Methods of Americanization, Carnegie Corporation, New York City.

Dr. William O. Weyforth, on leave of absence from the Western Reserve University, has been appointed first lieutenant in the National Army and assigned to work in the Statistical Section of the General Staff.

Dr. Howard Woodhead has leave of absence from the School of Economics, University of Pittsburgh, to engage in Y. M. C. A. work in France.

Associate Professor C. W. Wright has been promoted to a full professorship at the University of Chicago.

Professor Carleton H. Parker, head of the department of economics and dean of the School of Business Administration at the University of Washington, died March 17, 1918. In *The Nation* for April 18, 1918, there is an appreciative notice by Herbert E. Cory, of Berkeley, California.

